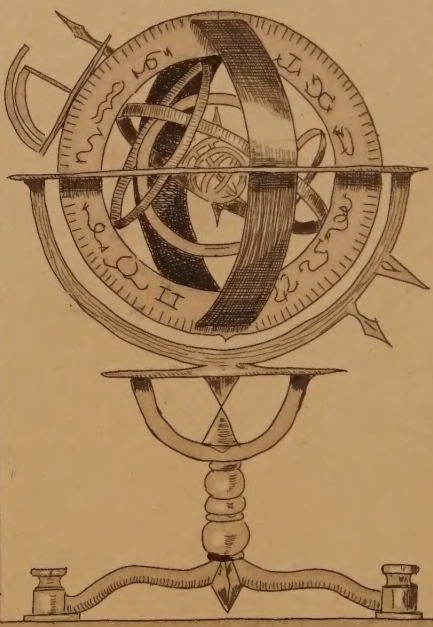

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THE VOYAGE OF CAPTAIN THOMAS JAMES FOR THE DISCOVERY OF THE NORTH-WEST PASSAGE, 1631

THE VOYAGE OF CAPTAIN THOMAS JAMES FOR THE DISCOVERY OF THE NORTH-WEST PASSAGE, 1631

BY

COMMANDER R. B. BODILLY, R.N.

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CHAPTER I

THE end of the fifteenth century saw the first and greatest of that wonderful series of discoveries which, during the next hundred years, changed the face of the whole known globe. From that time onwards it was generally accepted that the earth was a sphere. It followed from that, that there were many ways to any particular point. If the only known route was closed by enemies or entailed too long and arduous a voyage, another route should be available if it could only be found.

In 1492 Columbus discovered the West Indies, and in 1498 he landed on the mainland of South America in what is now Venezuela.

In 1497 the two Cabots, father and son, discovered Newfoundland and Canada.

In 1498 the great Portuguese navigator, Vasco da Gama, rounded the Cape of Good Hope and discovered the route to India and the Far East by way of the South Atlantic and the Indian Ocean.

From then onwards followed voyage after voyage, discovery after discovery, made by English, Spanish, Portuguese, and Dutch adventurers, who went out into the unknown to seek they knew not what. Each successful voyage fired the imaginations of others who hoped to do

the same, and the many tragedies were lost in the amazing tales of riches and adventure brought home by those who returned in ships laden to their marks with strange and wonderful cargoes.

In 1520 Fernando Magellan discovered the strait that still bears his name. Through this long and dangerous passage he entered into the South Seas and found the western route to China and the East. He himself was killed in the Philippines, but his ship completed his voyage round the world, thus finally proving to all men that the impossible could be accomplished.

In 1522 Cortez conquered Mexico with all its vast wealth; in 1530 Pizarro discovered Peru with its even vaster riches.

Until the reign of Elizabeth, the most valuable and important discoveries had been made by the Spaniards and Portuguese. The former held the rich West Indies and all Central America with Mexico and Peru; the latter had a monopoly of the eastern trade, which was quite as profitable. So secure were they against all rivals in both east and west, that in 1494 Pope Alexander VI divided the unknown world equally between the two.

The chief English discoveries of note, besides those of the Cabots, had been to the north-east. In the middle of the sixteenth century the famous Muscovy Company was founded. The ships of the company traded with Russia by way of the White Sea, and sent vessels to try to discover a passage to China round the north of Siberia. We know now that the attempt was hopeless from the start. Certain discoveries were made, but they were of little value to the

company, whose only interest was in a commercially practicable route.

The discovery of a northern route to China and the South Seas was the great dream of merchants and seamen then and for long afterwards. Both the north-east and the north-west were persistently searched, but greater faith was placed in the hope of a passage by the latter way. The difficulties were well understood, for the merchants had frequently been seamen in their youth, and knew from personal experience the dangers of the ice. But none knew the great length of the passage. One and all they believed that once the ship was round some mythical headland, she could sail due south into the warmer waters of the tropics. In the second half of the sixteenth century expedition after expedition was sent out to the north-west with that end in view. Davis and Frobisher sought a way through the ice-barrier and came back defeated through no fault of their own, leaving their names to wild lands and ice-bound seas as lasting monuments to their skill and courage. In 1610 Henry Hudson, while on the same quest, found Hudson Strait and Hudson Bay, and lost his life, together with that of his son, through the mutiny of his crew. In 1616 William Baffin found and left his name to Baffin Land, though Frobisher and Davis had landed on it in the previous century. They were all searching for the mysterious passage—the short way to El Dorado.

The last and greatest explorer of the north-west was Captain Sir John Franklin, R.N. He discovered great tracts of land—islands and capes and bays—all ice-bound in an ice-bound sea. In 1845 he left England in command of

H.M. ships *Erebus* and *Terror* on his last fatal expedition. Two years later he died in the Arctic. In 1848 the remnants of his crews abandoned his two ships and tried to reach civilization overland. One by one they died of cold and starvation on the journey; none came home to tell the tale.

The ships that went out to search for Sir John Franklin and his ill-fated company at last solved the riddle of the North-West Passage. They found some 2,500 miles of dangerous and intricate navigation lying between Labrador and the Behring Strait.

Among all the great discoverers in the north-west—those whose names are household words and those "forgotten worthies" who are now unknown—none showed to a finer degree all the qualities needful to success than Captain Thomas James.

> The reason firm, the temperate will,
> Endurance, foresight, strength and skill.

Though his voyage did not add largely to our knowledge of the north-west, it is typical of many northern voyages of exploration. But he did more: he went down into the southern end of Hudson Bay, which at that time was quite unknown, and wintered there. Such a thing had never been done before. The country was utterly unknown for hundreds of miles. The nearest settlement was probably St. Johns, Newfoundland. Ottawa, Montreal, Quebec, all now within a radius of some 400 miles from the southern end of Hudson Bay, did not exist. Even to-day the land for

many miles round Hudson Bay is only partially explored, as is shown by the dotted courses of so many of the rivers marked in the maps.

Captain James wintered in the great bight which is now named after him, James Bay, and extends south into Latitude 51 degrees north. The latitude of London is almost the same, but the climate of the British Isles is very different from that of the frozen plains of northern Canada.

A large volume of water, such as the North Atlantic, tends to keep an even temperature throughout the year. A large area of land, such as Canada or Europe or Asia, heats rapidly under the action of the sun and cools as rapidly when that action is withdrawn. The area of land tends to extremes of temperature; the sea to an even temperature. This is strikingly apparent when a comparison is made between the biting east wind of winter coming from the frozen plains of Central Europe and the mild west wind from off the Atlantic. Thus England, chiefly affected by the latter, has a temperate climate throughout the year.

Totally different influences govern the climate of James Bay, though it is no farther north than the Midlands of England. It is a comparatively small area of shallow water surrounded by a very large area of land. Its climate, therefore, assumes the characteristics of that of the neighbouring land. Added to this, the cold Labrador Current flows down the coast of Labrador laden with icebergs from the Arctic Ocean, tending to keep the temperature always low, though it is too far from James Bay to exercise a controlling influence over its climate.

Captain James wrote his account as events occurred and published his story of the voyage on his return home. In 1744 the Rev. John Harris, a great historian of voyages whose work is little known to-day, writes of Captain James's account: "It is very justly looked upon as the very best work of its kind that ever was published, and this in every respect; The Author being a knowing, careful, and experienced Seaman, one who wrote every thing as it occurred, and framed the History of his Voyage while it was making, and not after his return Home, from loose Papers, or a bare Sea Journal."

Captain James was already well known as an explorer of the Arctic. "Captain James had been employed in some Northern Voyages before, whence he came to be thought the fittest Person in the Kingdom, for attempting this so long wished for Discovery; which, however, he was not determined to undertake, till it was signified to him on the Part of the King, that it would be highly satisfactory to his Majesty."

Once he decided to attempt the voyage he left nothing undone that might conduce to its success. He at once applied to the merchants of Bristol for a ship in which to prosecute the venture. They rose to the occasion. Whatever he asked for was supplied at once. Everything was the very best that could be procured. The ship was specially built for the voyage, and no finer ship ever sailed from Bristol City. She was as nearly perfect as it was possible for a ship to be. It is most curious that we are nowhere told her name; she was always "the Ship." The merchants raised a fund which they placed in the hands of a treasurer

with instructions to do everything necessary as quickly and as well as possible. Captain James was very modest in his demands. His past experience told him what he would be likely to require, and he would not cumber his ship with any unnecessary thing.

"Captain James desired only a single Ship, and that a small one, of the Burden only of seventy Tons. She was built for this Voyage; and it will appear from what follows, that she was as well and strongly built as ever any Vessel of her Size was. The Number of Persons that he desired for the Execution of so difficult and so dangerous a Design, was no more than twenty-two; and the Provisions and other Necessaries that he required, was for 18 Months; and he acknowledges that they were provided for him in the full Proportions he demanded, and that in their several kinds they were as wholesome and as good as he could wish. He had the free Choice of the Men that were to serve under him, but he absolutely refused all Volunteers that had never been at Sea, in which there is nothing strange; but it must be allowed that it was somewhat surprizing, that he should reject also such as had sailed in those Seas before, for which he says he wanted not good Reasons, though it seems they were such as he did not think fit to disclose. The Qualities he required were, that they should be unmarried, approved, able, and healthy Seamen; he likewise took care that they should not have the least Knowledge or Acquaintance with each other; and, instead of entering them all at once, he first fixed upon a Boatswain and his Crew for rigging the Ship, and put them aboard before the rest of the Seamen; then he shipped the common Men,

and lastly his Officers; so that all things were ready at once; the Expence kept as much within Bounds as it was possible, and the wisest Precautions taken to prevent Factions and Mutinies, with which, as we shall see, he was never troubled, notwithstanding all the Miseries and Misfortunes that he and his People endured."

Captain James took every possible precaution in the selection of his hands. He intended to be the only experienced man in the ship, so that no one could dispute his decisions. His method of selection also tended to prevent mutiny during the early days of the voyage, and this was probably his undisclosed reason for acting as he did. His men were all strangers to each other, and would therefore be unlikely to hatch a mutiny—possibly with a view to turning pirates—while crossing the Atlantic on their outward voyage. They would not know enough of each other. Once within the ice, the opportunity would be gone. Being seamen, they could carry out his orders; being quite inexperienced in the Arctic, they would be helpless without his skilled leadership. He would therefore be necessary to their safety. Thus he protected himself in his command. Only twenty years before Henry Hudson had been turned adrift in an open boat by his mutinous crew, to perish with his small son in the ice of Hudson Bay. Captain James was anxious to avoid a repetition of that tragedy.

Everything was thought of, everything was prepared for; the captain saw to everything, was responsible for everything, and overlooked nothing. No better equipped expedition ever left the Bristol Channel—and yet it failed.

"The 2d of May I took my Leave of the Merchant-Adventurers in this Action, in the City of Bristol; and being accompanied by the Reverend Mr Palmer, and several of the Merchants I repaired aboard; where Mr Palmer made a Sermon, exhorting us to continue brotherly Love, and to be bold to profess the Christian Religion, wherever we should come in this our Peregrination. After they had received such Entertainment as I could afford they departed for Bristol. This Afternoon I made a Review of all Cloaths, Necessaries, and Victuals."

During the reign of James I the popular passion for discovery had to a certain extent died down. Ships did not get the great send-offs that they had had a hundred years earlier. In Elizabeth's reign a voyage of discovery was an occasion for great rejoicings. They had their sermons, but also a big banquet was held, with a dance to follow, and the Queen herself would wave a good-bye to the ships as they dropped down the Thames. In the west-country ports the same good customs prevailed, and ships put to sea carrying with them happy memories of festivities ashore. By this time, however, the gloomy Puritan conscience was becoming evident, which forbade rejoicings of any kind. Captain James had his sermon, but the festivities were limited to "such Entertainment as I could afford."

They met a south-west gale blowing right up the Bristol Channel, and they sheltered under Lundy. That was a good shelter, but Milford Haven was better, and they took the first opportunity to run there. When they put to sea again they had no more trouble, for the gale had spent itself. They worked along the south coast of Ireland

and cleared the Fastnet—unlighted in those days—in safety. They rounded the south-west corner of Ireland, running past Mizen Head, Dursey Head, and Valentia, till they took their departure from Blasket Island, which Captain James calls the "Blaskes." Then they headed out into the Atlantic for Greenland in the north.

They were thirteen days on the passage. "The 4th of June we made the Land of Groenland, standing in with it, to have Knowledge of the trending of it: It proved very foul Weather, and next Day, by two in the Morning, we found ourselves encompassed with Ice; and endeavouring to clear ourselves of it we were the more engaged, and struck many fearful Blows against it. At length we made fast to a great Piece, and, with Poles, wrought Day and Night to keep off the Ice; in which Labour we broke all our Poles."

From that time onward they were never free from peril. Ice, fog, and gales were their portion. It was a most unfortunate voyage in that respect. They had no sooner reached Greenland at the very outset of their voyage than they got caught in the ice. With any reasonable luck, they should have got well into Hudson Strait before they met with it in any quantity.

"The 6th, about two in the Morning, we were beset with extraordinary Pieces of Ice, that came upon us with great Violence, and doubtless would have crushed us to Pieces if we had not let fall some Sail, which the Ship presently felt. In escaping the Danger we ran against another great Piece, that we doubted whether our Ship had

not been staved to Pieces; but by pumping we found she made no Water."

They had not yet doubled Cape Farewell, and the ice was coming down the east side of Greenland from the great glaciers north of Denmark Strait. One of their boats was damaged, and they were lucky in not being sunk themselves.

"The former Pieces of Ice had crushed our Shallop all to Pieces, wherefore I caused our Long-boat to be had up from betwixt the Decks and put over-board, by the help whereof we recovered our broken Shallop, and set her upon the Deck, intending to new-build her. All this Day we beat, and were beaten amongst, the Ice, it blowing a perfect Storm. In the Evening we were enclosed among great Pieces as high as our Poop, and some of the sharp blue Corners of them reached quite under us. In this Extremity I made the Men let fall, and make what sail they could, and the Ship forced herself through it, though so tossed and beaten as I think never Ship was."

The gale with the heavy sea and grinding bergs put the ship in the utmost peril. Captain James took a big risk when he ordered sail to be made in such weather and drove her through. The blows on her bows might well have sunk her, or the shocks when she struck might have carried away her masts. But it was the only thing to do. At all costs he had to get clear.

The time of the year was the cause of it. In June the ice was breaking adrift from the grip of the winter's frost and was coming south, right across the ship's course. The water there was too deep for the ice to ground and stop.

They had four days of this, and doubled Cape Farewell on June 9th. From there they worked along the coast of Greenland in constant foul weather.

"On the 10th all the Morning was very foul, and high Sea, although we had Ice about us, and some Places as high as our Topmast-Head. Our Long-boat, which we were forced to tow a-stern, broke away, and put us to some Trouble to recover her. This we did, and brought her into the Ship, though much bruised, and had two Men much hurt. By eight in the Morning we were shot up as high as Cape Desolation; for finding the Land to trend away North and by East, we certainly knew it to be the Cape."

They were well south of the Arctic Circle and were entering Davis Strait with Hudson Strait due west of them. The desolate, rock-bound shores of southern Greenland offered them no shelter, and luckily they did not need one. When crossing Davis Strait they might expect to meet with ice. In the summer the bergs break away in the north and are brought south by the Labrador Current as far as Newfoundland, where they drift for months until they slowly dissolve in the autumn sun. When crossing Davis Strait Captain James would be crossing the track of the ice at a time when it would be drifting south.

We are not told why they kept a boat in the water. She would have been much safer hoisted inboard. Probably she was needed at times to tow round the head of the ship, or to go away searching for a passage through the ice. This was the second boat that had been smashed. It was a dangerous task getting her inboard from the water, where

the men might be nipped between the ice and the ship's sides with every roll.

And now came the fog.

"In this Course we were much beaten with the Ice, many Pieces being higher than our Topmast Head. In our Way we saw many Grampusses amongst the Ice, and the Sea is full of them; the Weather, a stinking Fog, and the Sea very black; which I conceive to be occasioned by the Fog."

In blinding fog and heavy ice—the two greatest curses of the sea that can afflict the seaman—they worked to the westward.

"The 17th, at Night, we heard the Tract of the Shore, as we thought; but it proved to be a Rutt of a Bank of Ice. It made a hollow and hideous Noise, like an Overfall of Water, which made us to reason among ourselves concerning it, for we were not able to see far, it being dark-night and foggy; we stood off from it till break of day, then in again; and about four in the Morning we saw the Land above the Fog, which we knew to be the Island of Resolution. This Night was so cold that all our Rigging and Sails were frozen."

They had crossed Davis Strait and were off the southern end of Baffin Land. Resolution Island forms the northern side of the entrance to Hudson Strait, with Labrador opposite to it on the south; it is the big outlying island of Meta Incognita which had been discovered by Frobisher some fifty years earlier.

Captain James was bound for Hudson Strait, so he had made a good landfall in the fog. He had crossed the

Labrador Current, and the edge of it, as it passed by Resolution Island, should set him to the south into the mouth of Hudson Strait.

"We endeavoured to compass the southern Point of the Island, where runs a quick Tide into the Streight; but the Ebb is as strong as the Flood. The Fog was of such a piercing Nature that it spoiled all our Compasses, and made them flag, and so heavy that they would not traverse; wherefore I would advise any that shall sail this Way, to provide Compasses of Moscow Glass, or some other Matter that endures the Moisture of the Weather."

It may have been that their proximity to the Magnetic Pole, which is in Boothia, only about 1,000 miles north-west of them, was affecting the compasses. If the "dip" of the needle was excessive, it would correspondingly lessen the power of the horizontal component of the total magnetic attraction. The compasses in those days, however, were not as mechanically perfect as are those of to-day, and it may well have been that the fog did enter and cause rust on the pivots, thus making the needles sluggish on their pins. Or possibly the result was due to both causes.

"As the Fog cleared up we could see the Entrance of the Streight to be full of Ice close wedged together; endeavouring to go forward we were fast enclosed amongst it; and so drove to and again with it, finding no Ground at two hundred and thirty Fathoms, four Leagues from the Shore."

There was a strong tide in Hudson Strait, and once

caught in the ice, the ship could only drive in and out of the entrance with it. She was in great danger, for, did a deep piece of ice ground on a reef and stop, the rest, piling against it in the tide, would probably crush and sink her.

"The 20th in the Morning we had got about the southern Point of the Island, and the Wind at West drove both us and the Ice upon the Shore; when we were driven within two Leagues of the Coast, we came among the strongest Whirlings of the Sea that can be conceived. There were great Pieces of Ice aground in forty Fathoms Water, and the Ebb coming out of the broken Grounds of the Island among those Isles of Ice, made such a Destruction that we were carried round sometimes close by the Rocks, and sometimes so close by these high Pieces, that we were afraid they would fall upon us. We made fast two great Pieces of the Ice to our Side, with our Sledges and Grapnels, that drew nine or ten Fathoms; that so they might be on Ground before us, if we were driven on the Shore; but that Design failed us."

The rocky, uneven bottom, aided by the grounded bergs, which latter acted like small islands, caused the tide to race through the narrow openings like a mill-stream. Thus, though the ship might have been in little danger while all the ice was afloat, as soon as any grounded the peril was great. The two pieces that they secured alongside might prevent her from stranding, but they would not prevent her from being crushed or capsized by the still drifting floes. The "sledges" with which they made fast

to the ice alongside were clearly "kedges," or small anchors.

"And now from the Top seeing in among the Rocks, I sent the Boat to see if she could find some Place of Security; but she was no sooner parted but she was inclosed, and driven to trail upon the Ice, or else she had been dashed to Pieces; they ran her over the Ice from Place to Place, and in the mean while, with the whirling of the Ice, the two Pieces broke away from our Sides, and carried away our Kedger and Grapnels: Then we made Signs to the Boat to make all the haste she could to us, which she perceiving, did; the Men being with much Difficulty forced to slide her over many Pieces of Ice. In the mean time we made some sail, and got to that Piece of Ice which had our Grapnel on it, which we recovered."

"By this time our Boat was come, and we put a fresh Crew into her, and sent her to fetch our Kedger, which she endeavoured with much Danger of Boat and Men. By this time the Ship was driven so near the Shore that we could see the Rocks under us, and about us, and we were carried by the Whirlings of the Water close by the Points of Rocks, and then round about back again; and all this notwithstanding the Sail we had aboard, and we expected continually when she would be beaten to Pieces. In this Extremity I made them open more Sail, and so forced her in among the Rocks and broken Grounds, and where there were many large Pieces of Ice aground. We went over many great Pieces of Rocks that had but twelve or thirteen Feet Water on them, and so let fall an Anchor; this Anchor had never been able to wind up the Ship, but

that by good Fortune the Ship ran against a great Piece of Ice that was aground: This Shock broke the main Knee of her Beakhead, and a Corner of it tore away four of our main Shrouds, and an Anchor that we had at her Bow; and so stopped her Way that she did wind up to her Anchor."

"We saw the sharp Rocks under us, and had but fifteen Feet Water; being also in the Tides Way, where the Ice would drive upon us."

They were on a barren, uncharted coast where, if they lost the ship, they had little chance of ever escaping with their lives. Yet they drove her in on the land before a gale of wind and among unknown rocks and ice, hoping to bring to with an anchor. It was the counsel of despair. They were inside the south-eastern island of Meta Incognita (a descriptive name given by Queen Elizabeth that is equally applicable to-day), and the westerly gale set them on a lee shore with all the ice of the strait on the top of them. Nothing could have been worse, and it is a miracle how they ever escaped. But miracles were common occurrences to the old explorers. The only thing in their favour was that the ice killed the heavy sea. There was too much drifting ice on the surface of the water for a sea to get up, but this was only a minor risk compared with the others.

They could not see the boat, and thought that she and her crew (one-third of their number) had been lost. Luckily she turned up after a time, bringing with her the kedge anchor that she had been sent to salve. She had been as fortunate as the ship. She might easily have been stove

in and sunk, especially when weighted down with the heavy kedge.

"With all speed we laid out Hawsers to the Rocks, and every one worked to the best of his Strength to warp her out of this dangerous Place to the Rock's Side, where we had three Fathom Water, and were under the Shelter of a great Piece of Ice that was aground, which kept off the straggling Ice that otherwise would have driven upon us. Here we lay very well at the Ebb, but when the Flood came we were assaulted with Pieces of Ice, that every half Hour put us into desperate Distress; we worked continually to keep off the Ice: At full Sea our great Piece of Ice which was our Buckler was afloat, and do what we could got away from us, and left us in imminent Danger from the Ice that drove in upon us; but the Ebb being once made, this great Piece of Ice came again aground, very favourable to us, and sheltered us all the rest of the Ebb. All Night we wrought hard to shift our Cables, Hawsers, and to make them fast aloft on the Rocks, that the Ice might the better pass under them. All Day and Night it snowed hard, and blew a Storm at West, which drove in all the Ice out of the Sea upon us."—"This Tide the Harbour was choaked full of Ice, so that it seemed firm and immoveable, but when the Ebb came it moved; some great Pieces came aground, which altered the Course of the other Ice, and put us on the Rocks."

Their boat and anchors got some damage from the ice, but they were very lucky in not getting more injury done to the ship herself. They were not yet free of their troubles;

all they had done was to ride out two tides in safety. Their luck did not last.

"Here, notwithstanding our utmost Endeavours, she settled upon a sharp Rock, about a Yard above the main Mast, and as the Water ebbed away, she hung after her head, and held to the Offing: We made fast Cables and Hawsers aloft to her Masts, and so to the Rocks, straining them tough with our Tackles; but as the Water ebbed away she was turned over, that we could not stand in her." —"The Ship was so turned over that the Portless of the Forecastle was in the Water, and we looked every Minute when she would overset; indeed at one Time the Cables gave way, and she sunk down half a Foot at that Slip; but unexpectedly it began to flow, and sensibly we perceived the Water began to rise apace, and the Ship withal; then was our Sorrow turned to Joy, and we all fell on our Knees, praising God for his Mercy in so miraculous a Deliverance."

It was well for them that the ship was not bigger. Had she been, probably the cables from her mastheads to the shore, which were the only things that kept her from capsizing, would have parted. Then nothing could have saved her. She was a very finely built ship, or she would have got badly strained through lying with all her weight on a few points of rock and without any support from the water. She was lying over so much that all hands landed on a piece of ice and waited for her to turn over. They could do nothing. They stood and watched to see her go and, with her, their only hope of life.

"As soon as she was freed from this Rock, we wrought

to get her farther off. All the Flood we were pretty clear from the Ice, but when the Ebb came the Ice came driving again upon us, which drove us to great Extremity: We got as many Pieces between us and the Rocks as we could, but there came a great Piece upon our Quarter, which was above three hundred of my Paces about, but it came aground. Thus came divers great Pieces besides; which was the Occasion that this Tide the Harbour was quite choaked up so that a Man might go any Way over it from Side to Side."

"When it was three Quarters Ebb, those great Pieces that came aground began to break with a most terrible thundering Noise, which put us in great Fear that those about us would break us all to Pieces; but God preserved us."

As the water dropped away from the grounded ice with the falling of the tide, the strains on the solid floes increased and caused their fracture. Had the ice been high above them, they might well have been sunk by some big top turning over on to them. But most of the ice was too low for that to happen.

"That Flood we had some Respite from our Labours, but after full Sea our Hopes ebb'd too. The great Piece that was by us so stopt the Channel that the Sea came all driving upon us, so that now undoubtedly we thought to have lost our Ship."

"To work we went with Axes, Bars of Iron, and any thing proper for such a Purpose, to break the Corners of the Ice, and to make way for it to go from us."

They managed to pack much of the softer broken ice

between them and the shore, and this helped the ship enormously. She lay against the packing and would not drive through it on to the rocks again.

Captain James landed and built a cairn of stones. On the top of it he put a cross, and named the place "The Harbour of Good Providence."

CHAPTER II

"On the 23d in the Morning with the Flood the Ice drove up among the broken Grounds, and with the Ebb drove all out except one great Piece, which coming aground not far from us, settled itself in such a Manner that we much feared it: But there came no more, otherwise we must have expected as great Danger as heretofore. I took the Boat and went ashore upon the Eastern Side, to see if I could find any Place free from Danger, and where, among the Rocks, I descried a likely Place. From the Top of the Hill where I was I could see the Ship. It was now almost low Water: At which Instant the great Piece of Ice broke with a terrible Noise in four Pieces, which made me afraid it had spoiled the Ship, it being full half Mast high. I made what Haste I could to the Boat, and so to the Ship to be satisfied, where I found all well, God be thanked. I instantly sent away the Boat to sound the Way to a Cove which I had found, which was a very dangerous Passage for the Boat. At her Return we unmoored the Ship, and with what Speed possible warped away from among this terrible Ice. We were not a Mile from them before they broke all to Pieces, and would surely have made us bear them Company, but that God was more merciful to us."

"We got round the Rocks, and so to this little Cove. Here we made fast to the Rocks, and thought ourselves indifferently safe."—"I called this Cove by the Master's Name of my Ship, Price's Cove: The Latitude of it is 61 Degrees 24 Minutes."

During all this time they were on the south-west side of Resolution Island, open to all the weather blowing in from Hudson Strait. When Frobisher had been here some fifty years earlier he had been caught in much the same way, and had very nearly lost his ships. He had been the first to enter Hudson Strait and had turned back, thinking that he had lost his way. Had he proceeded, Hudson Bay might have been discovered some thirty years before it was.

Captain James landed and climbed the island. From the top he could see Button Islands on the south side of the Strait bearing south-by-east half east from him. He had barely entered on the beginning of his voyage, and what his crew, every one of them strange to the Arctic, thought about it cannot be imagined.

On the island he found old traces of Esquimaux in the form of bones and hearths, but no signs of animals except an occasional fox. He observed the tides and watched the drift of the ice in the middle of the straits. He concluded that there was no true current, but only strong tides which set in and out of the straits with much force.

"Hence I collected that assuredly no Current sets in here, but that it is a mere Tide. Near the Shore the Eddies whirl in twenty Manners when the Ebb is made, which is because it comes out of the broken Ground amongst the Ice, that is, a Ground near the Shore; besides which

Reason there are divers Rocks lying under Water, on which you shall have thirty, then twelve, and anon but eight, and then twenty Fathoms; and those Uncertainties occasion such Distractions, I would therefore advise no one to come near those dangerous Shores, for fear he lose his Ship."

They were not there for long. Directly the wind shifted and gave them a chance to proceed, they put into the straits again.

"This Morning, being the 24th, there sprung up a fresh Gale of Wind at East; and after Prayer we unfastened our Ship, and came to sail steering betwixt great Pieces of Ice that were a-ground in forty Fathoms, and twice as high as our Top-mast-head. We sailed out of this Cove upon the Flood, and had none of these Whirlings of the Waters as we had at our going into it. We endeavoured to gain the North Shore, kept ourselves within a League of the Shore of the Island of Resolution, where we had some clear Water to sail through. In the Offing it was all as thick wedged together as possible. By twelve o'Clock we were fast inclosed, and notwithstanding it blew very hard at East, yet we could make no Way through it, but the Ice grated us with that Violence that I verily thought it would have wrenched the Planks from the Ship's Sides. Thus we continued in Terror till the 26th Day, driving to and fro in the Ice, not being able to see an acre of Sea from Top-mast-head."

In the deep water the ice was higher than it was near the shore. Only the smaller ice, which did not need so much water to float in, could get close in shore without

first grounding. The depth in the middle of the straits was about 140 fathoms. They fished while driving on the tide, but had no success; the water was probably too deep.

"The Nights are very cold, so that our Rigging freezes, and fresh Ponds of Water stand upon the Ice about half an Inch thick."

They gave up trying to force a passage. It was quite hopeless and only damaged the ship. The wind fell on the 26th, and on the next day they got a chance to proceed.

"On the 27th there sprung up a little Gale at South-east, and the Ice did something open. Hereupon we let fall our Fore-sail, and forced the Ship through the Ice. In the Evening the Wind came contrary, at West-north-west, and blew hard, which caused us to fasten to a great Piece, to which we remained moored till the 29th."

So they got on; securing to the ice when the wind or tide headed them; taking advantage of the least opening in the floes; with every favourable wind forcing the ship through at the risk of opening her seams or breaking her stem under the heavy blows she took.

For several days they gradually made westing in all sorts of weather. The only things constantly with them were the ice and the cold; though it was the end of June it froze hard every night.

"From the 29th to the 5th of July we sailed continually through the Ice, with variable Winds and Fogs, and sometimes calm. The 5th at Noon we had a good Observation, and were in Latitude 63 Degrees 15 Minutes, and then we saw Salisbury Island bearing West-by-north, some seven Leagues off, with much Ice betwixt it and us, to

weather which we were driven to stand to the northward. Soon after we saw Prince Charles's Cape, and Mill-Island; and to the North-north-west (and indeed round about us) the Sea most infinitely pester'd and cumber'd with Ice. This grieved me very much; for as I had determined to prosecute the Discovery to the North-westward, I saw it was not possible this Year. We were driven back again with contrary Winds, still closed and pestered with Ice, and with all the Perils and Dangers incident to such Adventures, so that we thought a thousand times the Ship had been beaten to Pieces. By the 15th of July we were got betwixt Digg's Island and Nottingham's Island, not being able to get more Northward. There, for an hour or two, we had some open Water."

They had reached the western end of Hudson Strait, having covered some 500 perilous miles through the ice since they had left Resolution Island—it had taken them three weeks. For most of that time they had been driving up and down the straits locked in the ice; gaining a little when they could, more often than not losing it again on the next tide.

Captain James wanted to get into Fox Channel to the north-west. With great luck and open water, he might then have discovered Hecla and Fury Strait and the Gulf of Boothia, all of which was totally unknown. He was, in fact, trying in the right direction though he did not know it. It was not the best way—that was by Baffin Bay and Lancaster Sound—but there was at least continuous water—and ice—to the Beaufort Sea and Behring Straits.

But the whole sea was sealed in impenetrable ice. He could only abandon the voyage or try to the southward. He was provisioned for eighteen months, so he decided to run south, hoping in the following year to have better luck.

"Being now convinced of the Impossibility of doing any thing to the North-westward, for the Reasons aforesaid, I gave Orders to the Master of my Ship to steer away West-south-west, to have a Sight of Mansfield Island, which the next Day by three o'Clock in the Afternoon we had; having so much dangerous foul Weather among the Ice, we struck more fearful Blows against it than we had ever yet done. This was the first Day that we went to Half-allowance of Bread on Flesh-Days, and I ordered things as sparingly as I could."

They anchored under Mansfield Island and sent the boat ashore. She was to test the rise and fall of the tides and to search for traces of the natives or of game. Fog soon set in, however, and it was only by firing guns to give her the direction that they got her back on board again. She had found old traces of Esquimaux similar to those that Captain James himself had seen on Resolution Island, and the tracks of animals, but in this case there were no foxes to be seen.

It seems as though Captain James had hoped to complete his voyage to the East within the year, though he does not say so definitely. Although he was provisioned for eighteen months, he cut his ship's company down in their rations as soon as he saw that he would have to winter in the ice. Hudson Bay had already been partially explored, and he guessed that he would not find a passage to the

South Seas in that direction unless by the merest chance. He pinned his faith—and rightly—to the north-west.

"The next Morning being the 17th, the Wind came favourable, and we weighed the Shore, being something clear of Ice, though very thick in the Offing. We stood along it South-and-by-west ten Leagues. In the Afternoon the Wind came contrary, and we came again to an Anchor within a Mile of the Shore, for out to Sea was all thick Ice and impassable."

Captain James went on shore to measure the rise and fall of the tide and to examine the land. He found some little tide, and the land was low and barren. There was no driftwood on the shore, no beast on the land or fish in the sea. It was a scene of utter desolation.

On the following morning they weighed and proceeded.

"We endeavoured to proceed to the Westward, intending to fall in with the Western Land about the Latitude of 63 Degrees; by twelve o'Clock, having been much pestered, we were come to a firm Range of Ice; but it pleased God that the Wind larged, and we stood away to the West-south-west. At Noon in Latitude 62 Degrees, by four in the Evening, having escaped dangerous Shocks, we were come as we thought into an open Sea, and joyfully steered away West and West-by-North, though the Joy was soon quelled, for by ten o'Clock at Night we heard the Rut of the Ice, and it grew a thick Fog, and very dark with it; nevertheless we proceeded, and the nearer we came to it the more hideous Noise it made. On the 19th by three in the Morning we were come to it, and as it cleared a little we could see the Ice as thick as any we had

yet seen, these being impassable, and moreover the Wind at North-west. We stood along it hoping to weather it to the Southward, but at last we became so blind with Fog, and so encompassed with Ice, that we could go no farther."

Captain James wished to make the land about Ranken Inlet, and he was crossing the northern half of Hudson Bay for this purpose. From Ranken Inlet he could work either north or south as opportunity offered and examine the coast while doing so. He was already in a blind alley as far as the object of his voyage was concerned. He could not know that he would have to go out as he had come into the Bay, unless he managed to find his way into Fox Channel by Roes Welcome and Frozen Strait, which was more than unlikely.

"On the 20th in the Morning, notwithstanding the Fog, we endeavoured to get to the Westward, our Ship beating all this while dreadfully. In this Wilfulness we continued till the next Day, when, being fast among the Ice, I observed we were in Latitude 60 Degrees 33 Minutes, and then looking what Damage our Ship might have received, we could perceive that below the Plate of Iron which was before her Cut-water she was all bruised and broken, the two Knees she had before to strengthen her spoiled and torn, and many other Defects which we could not by any means come to mend. Notwithstanding all this, and the extraordinary thick Fog, that we could not see a Pistol-shot about us, we proceeded with the Hazard of all till the 27th, which was the first Time we had clear Weather to look about us. The Wind withal came up at

South, and the Ice opened something, so that we made some Way through it to the Westward."

At last the ship was beginning to show signs of the heavy pounding that she had received. She was extraordinarily strongly built, but there was a limit to her powers of resistance. Her iron stem-plate should have been taken well along her bottom and out on to either bow. She had constantly to force a passage through very thick ice, and she was as likely to get struck well below the waterline as above it. It was a wonder that she had not had her rudder damaged when she was among the rocks and ice of the straits, but we are not told of her having received any damage aft. It was now greatly in her favour that she was so far within the straits. The ice to seaward killed any heavy sea, so that she was in comparatively calm water. The heaviest gales brought up a short steep sea, but nothing like the great Atlantic rollers. She might be stove in and sunk by striking a heavy floe, or she might be caught and crushed between two floes driving together in a gale—those were her greatest risks.

"In the Evening we were fast again, and could go no further, the Wind veering from the South to the East and blowing a fresh Gale. This occasioned our Grief the more that with a good Wind we could not go forward. Putting therefore a Hawser upon a great Piece of Ice, to keep the Ship close to it, we patiently expected better Fortune."—"On the 28th and 29th we were so fast inclosed in the Ice, that notwithstanding we put abroad all the Sail that was at Yards, and it blew a very hard Gale of Wind, the Ship stirred no more than if she had been in a dry Dock.

Hereupon we went all boldly out upon the Ice to sport and recreate ourselves, letting her stand still under all her Sails. It was flat extraordinary large Ice, the worst to deal withal that we had yet found. I measured some Pieces, which I found to be one thousand of my Paces long."

Either the gale was not very heavy or they did not set all sail. With the ship immovable, the masts would not have stood all her canvas in a very heavy gale, as a vessel close-hauled cannot carry so much canvas as she can when running free.

"This was the first Day that our Men began to murmur, thinking it impossible to get either forwards or backwards. Some were of Opinion that it was all such Ice betwixt us and the Shore: Others, that the Bay was all covered over, and that it was a Doubt whether we could get any Way, or to any Land to winter in. The Nights were long, and every Night it freezed so hard that we could not sail by Night, nor in the thick foggy Weather. I comforted and encouraged them the best I could; and to put away these Thoughts we drank a Health to his Majesty on the Ice, not one Man in the Ship, and she still under all her Sails. I must confess that their Murmuring was not without Reason; wherefore doubting that we should be frozen up in the Sea, I ordered that Fire should be made but once a-Day, and that with but a certain Number of Shides that the Steward should deliver to the Cook by Tale, the better to prolong our Fuel whatsoever should happen."

In view of all that they had to undergo before they saw England again, it was well for them that their captain took

all the care that he did. He was a very experienced navigator in the Arctic, and he needed all his skill to bring his ship's company home again.

"On the 30th we made some way through the Ice, heaving the Ship with our Shoulders, and with Mauls and Crows of Iron, breaking the Corners of the Ice, to make way as we got forwards. The Water shoaled apace, so that I believed it to be some Island."—"We put out Hooks to try to catch some Fish, but to no Purpose, for there are none in this Bay. On the 31st we laboured as before, and got something forward. At Noon we were in Latitude 58 Degrees 40 Minutes, our Depth twenty-three Fathoms. It was very thick hazy Weather, or else I think we should have seen the Land."

It is noticeable that Captain James never takes an observation for longitude. In those days there were no means of finding it, for chronometers, on which the accuracy of the observation depends, were unknown. We can get his approximate position from his latitude and the soundings. This is in no sense accurate, for the depths in Hudson Bay do not vary enough over large areas, and we are not told the height of the tide when taking the soundings, for which an allowance must be made.

At this time they were about half-way down into Hudson Bay and well to the southward of Ranken Inlet, for which they were making.

"On the 1st of August, the Wind came up at West which drove us to the Eastward where our Depth increased to 35 Fathom. At Noon, by Observation with the Quadrant on the Ice, we were in Latitude 58 Degrees

45 Minutes. At 6 o'Clock this Evening we might perceive the Ice to heave and set a little, which was occasioned by a swelling Sea that came from the South-west. This did comfort us very much, hoping shortly we should get out of the Ice. On the 2d it blew hard at South-west, and yet we could not feel the swelling Sea, which did again quench the Hopes we had formerly conceived. On the 3d we saw a little open Water to the North-westward and felt a Sea from thence, which doth assure us that there is an open Sea to the Westward. On the 5th we saw the Sea clear but could by no Means work ourselves to it with our Sails, wherefore about 6 in the Evening we let fall an Anchor in 50 Fathom Water, and stood all with Poles and Oars to fend off the Ice and let it pass to Leeward, and continued this Labour all Night. In the Morning the Wind came up at North-west and we weighed with much Joy, as hoping now to get into an open Sea to the Southward. This by Noon we had done and were in Latitude 58 Degrees 28 Minutes, very free of Ice. The Wind larged upon us, so that we stood away North-west to get us as high Northward as we could, and so come coasting to the Southward."

To weigh an anchor in fifty fathoms is an undertaking in itself when all the work has to be done by hand. The ship was small and her anchors were not very heavy; but they were a small crew with no spare hands to relieve each other at the bars, and they had much killing work at the capstan before they sighted their anchor. At such a depth it can have had little holding power, for the cable would lead too sharply upwards unless they had veered out to an

enormous length. Such as it was, however, it checked their drift to the eastward, for the driving floes were passing them all night.

They got clear of the ice on a south-westerly course and were soon able to head up to north-west as the wind freed and came round to the southward.

On the following day they again met with ice which lay very thickly to the north. On the 10th a heavy fog set in and the wind headed them. The water was shoaling rapidly, and they thought that they were closing the land. It was too dangerous to carry on through the fog, so they anchored in 22 fathoms.

"On the 11th in the Morning we weighed and made in for the Shore, and about Noon saw the Land our Depth being 16 Fathom in Latitude 59 Degrees 40 Minutes. The Land to the North of us did trend North by East and so made a Point to the Southward, and trending away West by South, which we followed taking it for that Place which was formerly called Hubbart's Hope, and so it proved indeed, but it is now hopeless."

They were off a straight barren coast just to the north of where is now Fort Churchill. There was no shelter for them if an easterly gale sprang up. They would be on a dead lee shore and with little room to work the ship, for the ice hemmed them in all round. They might anchor; but there was always the grave risk of their anchors dragging or of their cables being parted by the drifting ice floes or by the rocks. The little bay in which they were was not deep enough to give them any protection, and the land, as it curved out to Cape Churchill, would merely

prevent them from running to the southward. Their position could hardly be worse.

Captain James took careful note of the tides, for it was on the set of these that he and many more based their hopes of discovering a North-west Passage. He found that they set east and west, and that there was no steady current making in any direction. Had there been such a set, he intended to have worked up against it in the hope of finding that it came from some unknown strait that led through to the Pacific Ocean. Failing that, he did not know where to search.

"I am of Opinion, that in the Ocean or large Bays the Tide naturally sat East and West, and that this gives little Hope of a Passage. The greatest Depth we had in the Bay was 110 Fathom, and so shoaling as you approach the Land, we coasted round this forementioned little Bay which is 18 Leagues deep in 8 and 6 Fathom, and in the Bottom of it we were two Fathom and a half Water, and saw the firm Land almost round about us. Then we proceeded to the Southward 6 and 7 Fathoms Water, within Sight of the Breach of the Shore keeping the Lead continually going, and in the Night we came to an Anchor."

And in doing this they lost it.

"This Night having little Wind we came to an Anchor with our Kedger, but in weighing of him we lost him, having no more aboard us. The 12th we were in Latitude 58 Degrees 46 Minutes, some two Leagues from the Shore, the Variation is about 17 Degrees. On the 13th in the Afternoon it being something hazy, we saw some Breaches a-head of us, our Depth was 9 and 10 Fathom,

and loosing to clear ourselves of them, we suddenly struck upon the Rocks, the Ship being under our two Top-Sails, Fore-Sail and Sprit-Sail with a fresh Gale of Wind. In this dreadful Accident we struck all our Sails amain, and it pleased God to send us two or three good swelling Seas, which heaved us over the Rocks into three Fathom, and presently into three Fathom and an half, where we chop'd to an Anchor and tried the Pumps, but we found she made no Water, tho' she had three such terrible Blows that we thought her Mast would have shivered to Pieces, and that she had been assuredly bulg'd."

They could see the sea breaking, and were standing on under a press of canvas in hazy weather and half a gale of wind. Nothing could have been more dangerous. They were lucky in being in a wooden ship; had she been of iron, the rocks would have torn her bottom out. The wood yielded and withstood the sharp points that would easily have penetrated a thin iron skin.

They shortened sail at once and anchored to find out what damage they had sustained. Also, they did not dare to carry on. The whole place was a perfect graveyard of rocks. The water was breaking on the reefs all round them and they could see no way out.

"We hoisted the Boat over-board and double mann'd her to go and sound a Way out of this perilous Place, she was no sooner gone but there arose a Fog, so that we were obliged to spend some Powder that she might hear whereabouts we were. The Wind dull'd something, otherwise it had been doubtful whether she could ever have recovered us again. After she had been absent two or three Hours

she brought us word that it was all Rocks and Breaches round about us, and that withal, she had found a Way where there was no less than two Fathom and an half Water, and that afterwards the Water deepened; we presently weighed and followed the Boat, and passed over two Ledges of Rocks on which there were but 14 Feet Water, then it deepened to three, or four, and so to 14 Fathom, then it shoaled again to nine."

"It being now dark, we came to an Anchor where we rid all the Night."

They could do nothing in the dark. They were not yet clear of the reefs, and had to rely on the boat's sounding a passage through them. She could not work at night. The only thing they could do was to remain where they were. They passed the time usefully.

"In the Morning the Wind came contrary, so that we could not go that Way we intended to clear ourselves; and therefore we went to work to fit our Holds, to splice our Cables, and made ready two Shot, and so placed them in the Hold that they might on all Occasions run clear, the Ends of them being fastened to the Main-mast. We also looked to our Anchors and fitted our spare ones. We got out our long Boat from betwixt the Decks, which was very much broken and bruised. The Carpenter went to fit her, for I intended to tow the Shallop a-stern and to have the Boats ready at an Instant, either to lay out Anchors, or to be serviceable to what God should be pleased to try our Faith and Patience with, for in him was our only Trust and Hope."

Captain James was getting ready for really difficult

waters. He had just had a first taste of them, and had nearly lost his ship and all their lives with her. He did not want to be caught again, and it was only by being prepared for any eventuality that he could hope to escape.

"At Noon, in Latitude 57 Degrees 45 Minutes, we could see the Land from the North-west to the South-east by East, with Rocks and Breaches, and the Rocks that we came over dry above Water, whereby I knew it flows here above two Fathoms at least. At Noon I sent the Boat off to sound to the Eastward, because the Water shallowed when we came to an Anchor. She brought us Word the shallowest Water she had been in was seven Fathom: We intending thereupon to weigh, the Wind came East early, so that we could not stir, but lay here the 14th all Night with a stiff Gale of Wind. On the 15th in the Evening, our Cable rubbed off, by Reason of which perilous and sudden Accident, in which we had not Time to put a Buoy to it, we lost our Anchor, and were driven into four Fathom Water before we could set our Sails. When we had done we stood South-south-east, the Wind being at East, but the Water shallowed to three Fathom Water, then we stood North-north-east, and it deepened by Degrees to 10 Fathom, and because it grew dark they came to an Anchor, and rid there all Night."

Ships had only hempen cables in those days, and such would chafe through very quickly against rocks. The ship was lying on a rocky bottom, and that may well have caused the loss of the anchor. It was not buoyed nor was the cable, so they could not recover it except by "creeping" for the cable with a sunk grapnel. They could not under-

take that work in such a dangerous place; they had to get the ship clear at all costs.

The loss of the anchor nearly put them ashore. It happened in the evening just when they were hoping for a quiet night, and they were not ready to make sail in a moment.

"On the 16th in the Morning, the Wind came up at North, a fresh Gale, and we weighed and made Sail; by 9 o'Clock it came to a very Storm, and we turned to and again in 10 Fathom Water. In the Evening the Wind dulled, and we stood South-west to have a Sight of Port Nelson, which Course we stood all Night, by the Stars being in the Latitude 57 Degrees 25 Minutes, the Variation about 17 Degrees."

They were south and east of Cape Churchill, beating against a gale of wind on a desolate unknown coast, and with no shelter under their lee if the gale came round to the eastward. The land was low and flat, and could only be seen from a very short distance even in clear weather—and it was generally thick or hazy.

CHAPTER III

"On the 17th in the Morning we stood South, and our Depth decreased to eight Fathom; at Noon we had good Observation, being in Latitude 57 Degrees 15 Minutes, and made account that we were come six or seven Leagues of the Southern Side of Port Nelson. Here the Appearance of the Water changed, and was of a sandy red Colour: we stood into six Fathoms, and could not see the Land from Top-mast Head; so Night coming on, and it beginning to blow hard at East by South, we stood in again to ten and twelve Fathom, where the Water was again of the usual Colour of the Sea."

Had a heavy sea been running for some time, it might have stirred up the sand in the shallower water. But we are not told of a heavy sea. They had constant gales, but there was not room for a very heavy sea to get up, and the large amount of ice about would have an enormous effect in keeping the sea down. Probably the redness was due to the mud brought down by the Nelson River. This river drains Lake Winnipeg and has a large outfall at Port Nelson. That would colour the sea for miles round, especially as the coast was shallow.

If they got close in shore off Port Nelson they would be again embayed by a northerly or easterly gale. The

land from Port Nelson to Cape Tatnam runs out to the east-north-east, and, if caught inside the headland, they would have little room to beat to sea so as to be able to weather the point. Wherever they were, northerly or easterly winds put them into difficulties, for they were on a dead lee shore for both.

"On the 18th, as the Wind and Weather favoured us, we stood in again South and came into thick Water, into eight, seven, and six Fathom, and then off again, so it grew foggy Weather, keeping our Lead continually going Night and Day. The 19th being clear sun-shiny Weather, we stood in again into the thick Water into eight Fathom, where we came to an Anchor to try the Tides, for from the Top-mast Heads we could not see the Land."—"I perceived that there were nothing but Sholes to the Land. In the Afternoon it began to blow, so that we had much ado to get up our Anchor; this done, we stood East-south-east, but the Water shallowed apace, and then we stood East and deepened a little. In the Evening the Wind came up at West, and then we stood East-south-east into ten and eight, and afterwards South-east as our Depth guided us by our Lead and the Colour of the Water into seven and six Fathom."

During the whole of their run south—for well over 800 miles—they were in constant peril. The sea was shallow and studded thickly with unknown reefs; the land was low and difficult to see, and gave them no shelter; the weather was thick and hazy with frequent heavy fogs; the short northern summer was already over and the nights were drawing in.

They worked their way down the coast "by guess and lead"—and above all, by fine seamanship. It was the time-honoured way by which all the greater discoveries by sea had been made, either by Englishmen or by foreigners. Whether it was Magellan or Vasco da Gama, Frobisher or Captain James, the same fine qualities can be seen—a dogged persistence, a bulldog courage, and brilliant seamanship. They did not all do things in the same way; each crisis showed the personality of the leader; but whatever they did showed the great qualities common to them all.

"On the 20th at six in the Morning we saw the Land; it being very low Land, we stood in to five Fathom to make it the better, and so stood along it. At Noon we were in Latitude 57; we named it the Principality of South Wales, and drank a Health, of the best Liquor we had, to his Royal Highness Prince Charles, whom God preserve; we stood along it, and came to a Point where it trends to the Southward, near to which Point there are two small Islands. In the Evening it was calm, and we came to an Anchor; the Tide came as before. There we rid all that Night and the next Day. About nine at Night it was very dark and it blew hard."

"We perceived by the Lead that the Ship drove, wherefore bringing the Cable to the Capstang to heave in our Cable, for we thought we had lost our Anchor, the Anchor hitched again, and upon the Chopping of a Sea threw the Men from the Capstang; a small Rope, in the Dark, had gotten foul about the Cable and about the Master's Leg too; but by the Help of God he cleared

himself, tho' not without bruising. The two Mates were hurt, the one in the Head, the other in the Arm; one of our lustiest Men was struck on the Breast with the Bar, that he lay sprawling for Life, another had his Head betwixt the Cable, and hardly escaped. The rest were flung where they were much bruised, but our Gunner, an honest and diligent Man, had his Leg taken betwixt the Cable and the Capstang, which wrung off his Foot, and tore the Flesh all off his Leg, and crushed the Bone to Pieces, and bruised his whole Body, in which Miserable Manner he remained crying till we had recovered ourselves, and had strength to clear him. Whilst we were putting him and the rest down to the Chirurgeon, the Ship drove into shallow Water, which put us all in Fear, we being so sorely weakened by the Blows which had hurt eight of our Men. It pleased God that our Anchor held again, and she rid it out all Night. By Midnight the Chirurgeon had taken off the Gunner's Leg at the gartering Place, and dressed the others that were hurt and bruised, after which we comforted each other as well as we could."

With all the weight of the ship on the cable, the capstan had "taken charge." Some of the men heaving on the bars had slipped with the jumping of the ship and the rest could not hold it. Possibly there was no pawl that should prevent it from running back. With the capstan free, the flying bars might kill any man that was hit. The most serious injury was that of the gunner. He had his foot dragged off and the flesh of his leg stripped from knee to ankle by the taut cable as it flew round the spinning

capstan. He was lucky to escape with his life, and it is surprising that more were not killed or maimed.

They had eight injured out of a complement of twenty-two—more than one-third of their number—including the master and his two mates. They were left terribly short-handed for working the ship, especially as so many of the officers were included among the casualties.

One would think that this was enough to force them to return to England and make another attempt in the following year, but such a thing was not even suggested. They kept on to the southward, still hoping for success.

"On the 22d we weighed and stood a little off into deeper Water, expecting a better Wind, which in the Afternoon favoured us; we stood in again for the Shore and we proceeded along it; it is very shallow about 14 Leagues off and full of Breaches. On the 23d at Noon we were in Latitude 56 Degrees 28 Minutes; in the Evening the Wind came contrary, and we were fain to turn to and again. All this Month the Wind was very variable, and continued not long upon one Point, yet it happened so that we could get but little forward."

They often had to "turn to and again," or in other words, stand off and on beating, when they were liable to be set to leeward into shoal water or when the weather was too thick for them to see reefs in time to avoid them. It was then the only thing to do except anchor, but it wasted a lot of their time.

"On the 26th there sprung up a fine Gale at West, but thick Weather nevertheless; we stood in to seven and six Fathom, the Water very thick. At Noon it cleared, and

we could see that we were in a little Bay, the Land being almost round about us; we stood out of it, and so along it in Sight till the 27th in the Morning, when we came to higher Land than we had yet seen since we came from Nottingham Island; we stood in to it and came to an Anchor in five Fathom."

A west or north-west wind was the best that they could have. They then had the shelter of the weather shore, and could safely close the land without fear of being set on to the rocks. It was also a fair wind for their course to the southward, and at any time they could run out before it into deeper water to the east. But if they were too close in shore and the wind suddenly changed, as it often did, they might find themselves driven on shore before they could get clear. That, and the unknown reefs, were always the danger in closing the land.

"I sent off the Boat well manned and armed, with Order in Writing what they were to do, and a Charge to return again before Sun-set. The Evening came, and no News of our Boat; we shot, and made also Fires, but had no Answer, which much perplexed us, fearing there had some Disaster befallen her through Carelessness, and in her we should lose all, we aboard at present not being able to weigh our Anchor nor sail the Ship."

"At last we saw a Fire upon the Shore, which made us the more doubtful, because they did not answer our Shot nor false Fires with the like; we thought it had been the Savages that triumphed in their Conquest; at length they came all safe and well, and excused themselves, that upon their coming on Shore it ebbed so suddenly, that a Bank

of Sand was presently dried, so that they could not come away till that was covered again, and with that they pacified me. They reported that there was great Store of Drift-wood on the Shore, and a good Quantity growing on the Land. That they saw the Tracts of Deer and Bears, and store of Fowl, of which they killed some, but no Sign of People. That they passed over two little Rivers, and came to a third, which they could not pass."

With a double boat's crew lost and eight men under the care of the surgeon, there had been only enough men left on board to keep a lookout. But the boat brought good news. They had got south of the barren lands and had reached wooded country. Where there was wood and game they had some chance of keeping themselves alive, even though they lost or had to abandon the ship. It was quite another matter whether they could ever get home again. There were no white settlements that they could hope to reach. They might support life without the ship, but it was more than unlikely that they could get home.

Then they sighted a man-of-war and saw the first humans that they had seen since they left England four months earlier.

"On the 29th in the Morning we made Account we had driven back again some sixteen or eighteen Leagues, and in the Morning, as it cleared, we saw a Ship to Leeward of us three or four Leagues, so we made sail and bore up with her; she was then at anchor in thirteen Fathom. It was His Majesty's Ship, commanded by Captain Fox; I saluted him according to the Manner of the Sea, and received the like of him; so I stood in to see the Land, and

thought to tack about, and keep the Weather of him, and to send my Boat aboard of him; but the Wind shifted, so that for that Time I could not. Yet in the Evening I came to weather of him, who presently weighed, and stood off with me till Midnight, and then we stood in again. In the Morning Captain Fox and his Friends came aboard of me, where I entertained them in the best Manner I could, and with some fresh Meat I had gotten from the Shore."

It was a great joy to meet Englishmen in such a place. Captain Fox was the discoverer of Fox Channel to the north of Hudson Bay. He made the discovery on the voyage in which he was then engaged. Captain James had already tried to enter Fox Channel, but had been prevented by the heavy ice. Captain Fox was more successful.

Captain James gave him a full account of all that he had done and seen, and described in detail the results of his survey of the western shore of Hudson Bay. At that time Captain Fox had not accomplished so much.

"He told me he had been in Port Nelson, and had made but a cursory Discovery hitherto; and that he had not landed, nor had many times seen the Land. In the Evening after I had given his Men some Necessaries, with Tobacco, and other things they wanted, he departed aboard his Ship, and the next Morning stood away South-south-west, since which Time I never saw him. The Wind sometimes favouring me, I stood in for the Shore, and so proceeded along. The Month of August ended with Snow and Hail; the Weather being as cold as at any Time I have felt in England."

Tobacco had been in use in England for a bare fifty

years. Sir Walter Raleigh, who introduced it, had only been dead for thirteen years. But tobacco was already a greatly appreciated luxury, and was rapidly becoming a necessity. This is one of the first instances in which tobacco was given by one ship to relieve a shortage in another.

"September the 1st we coasted along the Shore in ten Fathom, when it cleared in sight of Land; at length the Water shallowed to six and five, and, as it cleared, we saw it all Breaches to Leeward, so we hulled off North-north-east, but still raised Land; by Night we had much ado to get out of this dangerous Bay. At Midnight the Wind came up at South, and so we took in our Sails, and let the Ship drive to the Northward, into deeper Water. This Day was the first Time the Chirurgeon told me that there were diverse of the Men tainted with Sickness. At Noon we were in Latitude 55 Degrees 12 Minutes."

As was usual with them, they had been running in thick weather and through strange waters into a bay to leeward. The fog lifted just in time to show them all the sea honeycombed with reefs ahead. They had barely time to haul their wind and clear the rocks. The change of wind gave them a chance to get sea-room again, which they were quick to take advantage of and to leave their dangerous neighbourhood.

Until now Captain James had been very lucky in not having any sickness on board, but after four months of bitter work and the hardest of hard living, the crew were at last beginning to show signs of the strain. It was not yet a serious matter, but it might soon become so, especially as

several men were still incapacitated by the injuries that they had received when the capstan took charge.

"On the 2d we stood in for the Shore; but as we came into shallow Water it began to shew the Weather threatening a Storm, wherein we were not deceived; for in standing off we had a violent one. By Midnight it broke up, and the 3d in the Morning we stood in for the Shore, and by eleven we saw it; here we found the Land to trend South-south-east, and South, so that we knew that we were at a Cape Land, and named it Henrietta Maria, by her Majesty's Name, who had before named our Ship. At Noon we were in Latitude 55 Degrees 5 Minutes, and that is the Height of the Cape. From Port Nelson to this Cape the Land trends generally East-south-east, but makes with Points and Bays, which in the Particulars doth alter it, a Point two or three; the Distance is about one hundred and thirty Leagues. The Variation at this Cape, taken by Amplitude, is about 16 Degrees, a most shallow and perilous Coast, in which there is not one Harbour to be found."

They had reached the north-west corner of James Bay. All that area was then unknown, and Captain James was to give his name to the great bight that he was about to discover. They were no safer now that they had discovered the cape than they had been before; they were still on a lee shore for any easterly wind, and the coast was no less dangerous.

"The 3d Day in the Afternoon, we had a Storm at North, which continued till Midnight with extreme Violence. The 4th in the Morning the Storm being broke

up, we stood in again South-west, the Weather being very thick, and we continued sounding. By Noon it cleared, and we saw the Land; here it trended South-east, and the Tides sat along it with a quick Motion. In the Evening there came a great rolling Sea out of the North-north-east, and at eight o-clock it blew very hard at South-east; and by reason of the Encounter of the Wind, and this great Sea, the Sea was all in a Breach; and to make up a perfect Tempest, it did so lighten, snow, rain, and blow all the Night long, that I was never in the like. We shipped many Seas, but one more dangerous, which racked us fore and aft; and I verily thought it had sunk the Ship, it struck her with such Violence. The Ship did labour most terribly in this Distraction of Wind and Waves; and we had much ado to keep all things fast in the Hold, and betwixt Decks."

"The 5th in the Morning the Wind shifted South-west, but changed not its Condition; In the Afternoon it changed again to the North-west, with that tearing Violence, that not I, nor any that were then with me, ever saw the Sea in such a Breach. Our Ship was so tormented, and so laboured with taking it in on both Sides, and at both Ends, that we were in most miserable Distress, in this so unknown a Place; at eight o-clock in the Evening the Storm broke up, and we had some Quietness in the Night following, not one having slept a Wink in the twenty Hours before. If this Storm had continued Easterly, as it was at first, without God's Goodness we had all perished."

This was by far the worst storm that they had. The constant shifting of the wind from south-east to south-

west and then to north-west, together with the heavy and continual lightning, leads one to believe that the storm was in the nature of a hurricane, or revolving storm, but if so, it was unusually far north. In such comparatively confined waters as James Bay it would require something quite out of the ordinary to bring up a "great rolling Sea," especially before the gale had set in. The centre of the storm passed to the north of them and was moving in a north-easterly or east-north-easterly direction.

They were very lucky in that the wind shifted from south-east; that was about the worst quarter for them. It set them on a lee shore, and that close aboard. The shift of wind saved them, for with so heavy a sea running not one of them would have escaped alive had the ship stranded.

"On the 6th the Wind was at South-west, so that we could do no good to the Windward. We spent the Time therefore in trimming our Ship; we brought all our Coals, which for the most part was great Coal, aft, as we also did some other Things, and all to lighten her afore. Others picked our Bread, whereof there was much wet; for do what we could we shipped abundance of Water between Decks, which ran into the Hold, and into our Bread-Room; for the Sea so continually overracked us, that we were like Jonas in the Whale's Belly. We overlooked our Tacks and Sheets, with other Riggings of Stress, because that henceforward they were to look for no other but Winter Weather. This Evening our Boatswain, a careful Man, and one that had laboured extremely these two or three Days, was very sick, swooning away three or four

Times, insomuch that we thought he would presently have died."

The ship badly needed an overhaul after the storm. It was enough to strain all her gear without counting the gales that she had been through previously. She had been buried in the heavy seas for hours, and the wind had been almost enough to take the masts out of her. Had she tried to set any canvas she must have been capsized or lost everything in the storm.

The crew badly needed a rest; they were worn out. The collapse of the boatswain only indicated the state of the remainder. The constant cold and wet, coupled with the endless killing work, cramped quarters, and poor food was having its effect. Ships could not carry food as they can to-day, and, although everything was of the best, the rations were not such as would keep men permanently in health.

"The 7th in the Morning the Wind came up to South-west, and we stood away South-west, under all the Sail that we could make."

This wind cannot have been right, for they would have been sailing dead against it.

"In this Course we saw an Island, and came close aboard it, and had twenty Fathom Water, which was some Comfort to us; for hitherto we could not come within four or five Leagues to the Shore at that Depth. This Island stands in 54 Degrees 10 Minutes."

This island was to the north of Akimish Island, and was probably Bear Island, or it may have been any one of the many unnamed islands in the northern part of James Bay.

On that shallow coast it was exceptional for them to be able to approach it in deep water. They did not land, but ran on to the south-west.

"The Afternoon we stood away South-west, and in the Evening had the shallowing of the Western Shore, in eight, ten, and seven Fathom, but it was so thick, that we could not see the Land. It is about fourteen Leagues between this Island and the Main. The 8th was foggy and calm, which so continued till the 9th in the Morning, the Wind then coming up at South-south-west. In the Evening the Water shallowed to ten and nine Fathoms, wherefore we stood off and on all Night. The 10th we made it, finding it an Island of about eight or nine Leagues long. It stands in Latitude 53 Degrees 5 Minutes, and about fifteen Leagues from the Western Shore. The Part of it that we coasted, trends West-north-west, I named it my Lord Weston's Island. We stood still away to the Eastward, it being foggy Weather. In the Afternoon we descried Land to the Eastward of us, which made like three Hills. Towards them we sailed, keeping our Lead still going and very circumspect."

They were getting more and more among the islands as they approached the bottom of the Bay. From Weston's Island they stood out across the Bay until they sighted land, and soon afterwards they sighted more land to the southward. They had reached the southern end of the Bay and could go no farther.

"At length we also saw Land to the Southward of us, whereupon we loosed up and made to that by Course, as we had set it in the thick Fog. We came in among such

low broken Grounds, Breaches, and Rocks, that we knew not which Way to turn us; but, God be thanked, it was but little Wind, and soon came to an Anchor. Soon after it cleared, at which Time we could see nothing but Sands, Rocks, and Breaches, round about us, that Way only excepted which we came in. I sent presently the Boat to sound among the Sholes and Rocks, that if we should be put to extremity, we might have some Knowledge which Way to go. This Night proved calm, and fair Weather, and we rid quietly."

The whole of Hudson Bay is shallow, and the bottom of James Bay is the shallowest of all. The land is also generally low, so that it was not easily seen. The weather was foggy; the waters uncharted but full of reefs; the only winds by which they could get out of the bay must come from the south; anything else, if it lasted more than a few hours, must put them in peril. From a seaman's point of view, their position was hazardous in the extreme.

"On the 11th, in the Morning, I went in the Boat ashore myself, and sent the Boat about among broken Grounds, to sound; I found the Land utterly barren, even of that which I thought easily to be found; which was Scurvy-grass, Sorrel, or some Herb or other, to have refreshed our sick people. I could not perceive that the Tide flowed here ordinarily above two Feet. There was much Drift-wood on the Shore, and some of it drove up very high in the North-side of the Island, where I judged that the Storms were very great at North, in the Winter. Thus I returned aboard, and sent many of our Sick Men to another Part of the Island, to see if themselves could

fortunately find out any Relief for their Grief. At Noon, by good Observation, we were in Latitude 52 Degrees 45 Minutes. In the Evening our Men returned comfortless, and then we weighed, and stood to the Westward, coming to an Anchor under another Island, in twenty Fathom."

The crew were afflicted with scurvy—the greatest curse that could attack them. Then and for centuries it was the most dreaded plague of seamen. It was a painful and most unpleasant disease, for which the only known cure was fresh green food—the one thing that they could not get. It is practically unknown nowadays, for foods can be preserved in many ways that were not known to our ancestors. Nowadays, after several days at sea on salt provisions, limejuice is regularly issued in the rations as a preventative of scurvy.

Many a ship was lost through her scurvy-ridden crew being too weak to handle her; many a ship came home half-manned, the rest of her crew having been buried at sea or on some barren shore where green food did not grow. Various herbs were known to cure the scurvy—almost anything fresh and green and edible would do. The most famous was scurvy-grass, which was found growing in many parts of the world. Its effect was amazing; men lying at the point of death would recover in a few days, once they could get enough of it. But here there was none.

The line of drift-wood being so far above the high-water mark was ominous. A northerly gale was the one thing that they had most to fear. It put them on a deadly shore where they had no room to beat to sea. The sea

might be heavy, too, for it had some 800 miles in which to get up when coming from the north, and this was quite enough to allow of its being serious. It would probably be a short, steep sea, for the shallow water and the comparatively short distance of 800 miles would prevent it from growing into the long ocean rollers which need deep water and much distance in which to develop. But the former could be just as dangerous as the latter—possibly more so, for it would be more liable to break. Where a ship would ride easily over long rollers, she would get smashed and perhaps swamped in a short breaking sea, as a boat which lifts lightly over a long swell will be filled by the wash of a passing steamer.

CHAPTER IV

"The 12th in the Morning it began to blow hard at South-east, which was partly off the Shore, and the Ship began to drive, it being soft oozy Ground. We heaved in our Anchor thereupon, and sailed under two Courses. Whilst most were busy in heaving out the Top-Sails, some, that should have had especial Care of the Ship, ran her ashore upon the Rocks, out of mere Carelessness in looking out and about, or heaving of the Lead, after they had seen Land all Night long, and might even then have seen it, if they had not been blind with Self-conceit, and been obviously opposite in Opinion. The first Blow struck me out of a deep Sleep, and I, running out of my Cabin, thought no other, at first, but I had been wakened to provide myself for another World."

It is surprising that Captain James himself was not on deck. He was in charge, and, even if he was not called when the ship began to drag her anchor, as he should have been, it is inconceivable that he slept through the getting under way and making sail in a gale of wind. Any seaman would wake naturally at the change in the movement of the ship, even though the noise was not enough. But it seems more probable that he may have turned in again after having

seen the ship, as he thought, safely under way and clear of the land.

"After I had controuled a little Passion, and had checked some bad Council that was given me to revenge myself upon them that had committed this Error, I ordered what should be done to get off these Rocks. First we hawled all our Sails back, but that did no good, but made her beat the harder. Whereupon we struck all our Sails amain, and furled them up close, tearing down our Stern to bring the Cable through the Cabin, to Capstang, and so laid out an Anchor to heave her astern. I ordered all the Water in the Hold to be staved, and set some of the Pumps to pump it out, and intended to do the like with our Beer; others I put to throw out all our Coals, which was soon and readily done. We coiled out our Cables into the Long-boat, all this while the Ship beating so furiously, that we saw some of the Sheathing swim by us. Then we stood, as many as could, to the Capstang, and heaved with such a good Will, that the Cable broke, and we lost our Anchor, but with all Speed therefore we put another. We could not now perceive whether she leaked or no, and that by Reason we were employed in pumping out the Water, which we had bulged in Hold, though we feared she had received her Death's Wound. Therefore we put into the Boat the Carpenter's Tools, a Barrel of Bread, a Barrel of Powder, six Muskets, with some Matches and a Tinder-Box; Fish-Hooks and Lines; Pitch and Oakham; and, to be brief, whatever could be thought on in such an Extremity. All this we sent ashore to prolong a miserable Life for a few Days. We were five Hours thus beating, in which

Time she struck an hundred Blows, insomuch that we thought every stroke had been the last that it was possible she could have endured. The Water we could not perceive all this while to flow any thing at all."

In such waters the slightest carelessness or error might lose the ship. She was hard and fast aground. They could not back her off under her canvas; they even parted a cable in trying to heave her off to an anchor laid out astern. Those were clearly the first things to try. Every minute was of consequence. The ship was beating heavily, and soon parts of her outer skin were seen to come to the surface, showing how serious was the damage being done below water. They started their water-casks; they could easily refill them, for they were not on a dry coast. The beer was more important. All ships took beer to sea in those days; it was their chief drink besides water.

As she did not move and was showing signs of serious injury, they prepared to abandon her. In urgent haste they loaded the boat with what they could and landed it, but Captain James was right in saying that they could "only prolong a miserable Life for a few Days." Without the ship, they were marooned in an unknown land with very little hope of ever seeing England again. Having the carpenter's tools they might build a pinnace, but it would be a tremendous undertaking, even if they succeeded. It had been done before and might be done again, so that it was not outside the realms of possibility.

"At length it pleased God she beat over all the Rocks, though yet we knew not whether she was staunch; whereupon we went pumping all Hands, till we made the

Pumps suck, and then we saw how much Water she made in a Glass. We found her to be very leaky, but we went to Prayer, and gave God thanks it was no worse; and, so fitted all things again, and got further off and came to an Anchor. In the Evening it began to blow very hard at West-south-west, which if it had done whilst we were on the Rocks, we had lost our Ship without any Redemption. With much ado we weighed our Anchor, and let her drive to the Eastward, among the broken Ground and Rocks, the Boat going before sounding; at length we came among Breaches, and the Boat made signs to us that there was no going further among the Rocks, therefore we again came to an Anchor, where we rid all Night, and where our Men, which were tired out with extreme Labour, were indifferent well refreshed."

The "breaches" in the sea—or broken water—were ample warning to keep clear.

With a southerly wind the tides had only a few inches rise and fall. Captain James was anxious to beach his ship and careen her to examine her bottom and assess the damage. He found, however, that he would gain nothing by beaching her at high tide, for she would not be left above water when the tide was out. In the meantime they were continually at the pumps to keep her afloat. She was making a lot of water, and they had no chance to look for and stop the leaks.

"The 13th at Noon we weighed, and stood to the Westward, but in that Course it was all broken Ground, sholes, and sunken Rocks; so that we wondered how we came in among them in a thick Fog. Then we shaped our Course

to the Northward, and after some Consultations with my Associates, I resolved to get about this Land, and so to go down to the bottom of Hudson's Bay, and see if I could discover a Way into the River Canada; and if I failed in that, then to winter on the main land, where there is more Comfort to be expected than among the Rocks or Islands."

Thus Captain James gave up all hope of returning home in that year, and decided to winter where no man had ever wintered before. He hoped to find a passage by water through what is now the Province of Quebec into the St. Lawrence. The distance was from 400 to 500 miles. The Great Lakes were unknown, and Captain James's efforts would be in a south-south-easterly direction. There was nothing to make him hope for success. There were no great rivers running into the bay from the southward up which he might proceed; no tides or currents indicated a passage through the land. It was a forlorn hope, but he had only the alternative of wintering on the mainland. There was no hope at all of passing back through Hudson Strait, so far to the north, at that late season of the year; by that time it would be sealed in impenetrable ice.

"We stood along the Shore in Sight of Many Breaches. When it was Night we stood under our Fore-sail, the Lead still going. At last the Water shallowed upon us to ten Fathom, and it began to blow hard. We tacked about, and it deepened to twelve or fourteen Fathom, but by and by it shallowed again to eight Fathom; then we tacked about again, and suddenly it shallowed to six and five; so we struck our Sails amain, and came to an Anchor, resolving

to ride it for Life and Death. We rid all Night, and thought our Ship would have been torn to Pieces. At Break of Day, the 14th, we were joyful Men, when we could look about; we descried an Island some two Leagues off at West and by North, and this was the Shole that lay about it. Here ran a distracted, but yet a very quick, Tide, of which we taking the Opportunity, got up our Anchor, and stood North-west, to clear ourselves of this Shole; In the Afternoon the Wind came up at North-east, and we stood along the Western Shore, in Sight of a multitude of Breaches. In the Evening it began to blow a Storm, and the Sea went very high, and was all in a Breach. Our Shallop, which we now towed at Stern, being moored with two Hawsers, was sunk, with her Keel up. This made our Ship to hull very broad, so that the Sea did continually over-rack us. Yet we endured it, and thought to recover her. All Night the Storm continued with Violence, and with some Rain; in the Morning it was very thick Weather."

It was nothing new for them to ride out a gale surrounded by rocks; they had done it frequently during the past few months. This place was worse than most of the others in which they had been, however, for there seemed to be no way out at all.

"The Water shoaled apace, with such an over-grown Sea withal, that a Sail was not to be endured; and what was worse, there was no trusting to an Anchor. Now therefore we began to prepare ourselves, how to make a good End of a miserable tormented Life. About Noon, as it cleared up, we saw two Islands under our Lee, where-

upon we bore up to them, and seeing an Opening betwixt them, we endeavoured to get into it before Night, for that there was no hope of us if we continued out at Sea that Night, therefore come Life, or come Death, we must run this Hazard. We found it to be a good Sound, where we rid all Night safely, and recovered our Strengths again, which were much impaired with continual Labour; but before we could get into this good Place, our Shallop broke away, being moored with two Hawsers, and we lost her to our great Grief. Thus now we had but the Ship's Boat, and she was all torn and bruised too. This Island was the same that we had formerly coasted the Western Side of, and had named Lord Weston's Island. Here we remained till the 19th, all which Time it did nothing but snow and blow extremely, insomuch that we durst not put our Boat overboard."

They constantly needed their boats for sounding ahead of the ship when running through rocky channels or closing the land, and they would need them to land themselves and their gear when they had found a wintering place. Without boats they would be badly handicapped.

"This Day the Wind shifted North-north-east, and we weighed and stood to the Southward, but by Noon the Wind came up at South, and so we came to an Anchor under another Island; on which I went on Shore, and named it the Earl of Bristol's Island. The Carpenter wrought hard in repairing our Boat, whilst I wandered up and down in this desart Island. I could not perceive that there had been any Savages on it, and in brief, we could neither find Fish, Fowl, or any Herb upon it; so that I

returned comfortless again. The Tides high, about some six Foot, now the Wind is Northerly."

This was what they wanted for careening the ship, but it was taking a big risk to beach her on an open beach with a northerly wind setting right on shore, especially where gales sprang up so suddenly. It could only be done with safety if they could find a good beach sheltered from the open sea. Even then there would be some risk, for the wind might suddenly change and lessen the range of the tide. If that happened, they might not be able to get her afloat again until they had another northerly wind.

"Here, seeing the Winds continue so Northerly that we could not get about to go into Hudson's Bay, we considered again what was best to do, to look out for a wintering Place; some advised me to go for Port Nelson, because we were certain that there was a Cove where we might bring in our Ship. I liked not that Counsel, for that is a most dangerous Place, and it might be so long ere we got thither, that we might be debarred by the Ice; moreover, seeing that it was so cold here that every Night our Rigging froze, and sometimes in the Morning we shoveled away the Snow, half a Foot thick, off our Decks; and in that Latitude too I thought it far worse than the other Place; I resolved thereupon to stand again to the Southward, there to look for some little Creek, or Cove, for our Ship."

The captain was certainly right. They would have great difficulty in beating out of James Bay against the northerly winds that had set in. The whole of Hudson Bay does not freeze over, but all the coast freezes, and this

would be enough to prevent them from using the cove at Port Nelson, even though they got so far. It was most unlikely that they could not find a suitable place on some island near at hand. The sea where they were was full of islands which were certain to have beaches that would give them the shelter necessary for the ship. It was foolish to go farther, especially north, when they were more likely to find what they wanted close at hand.

"On the 21st the Wind came up at North, and we weighed although it was a very thick Fog, and stood away South-west, to clear ourselves of the Sholes, that were on the Point of this Island. This Island is in Latitude 53 Degrees 10 Minutes. When we were clear we steered away South. At Noon the Fog turned into Rain, but very thick Weather, and it thundered all the Afternoon, which made us fear a Storm, yet we ventured to proceed. In the Evening the Wind blew hard, therefore we took in all our Sails, and let her drive to the southward, heaving the Lead every Glass. Our Depth, when we took in our Sails, was thirty Fathom, and it increased to forty-five, which was a great Comfort to us in the dark. At Midnight our Depth began suddenly to decrease, and as fast as the Lead could be heaved it shoaled to twenty Fathom, wherefore we hop'd to come to an Anchor, and trimmed our Ship aft, to mount to the Sea, and fitted all Things to ride it out. There was no Need to bid our Men watch now. We rid it out all Night although it blew very hard."

That the ship could be trimmed so easily gives an idea of how small she really was. With so little trouble could she be brought by the stern that it was done before

anchoring in a gale so that she could ride out the heavy sea more securely.

"The 22d in the Morning, when we could look about us, we saw an Island under our Lee some Leagues off, all Sholes and Breaches between us and it. At Noon, by the Help of the windward Tide, we attempted to heave up our Anchor, although the Sea went Mountains high; joining all our Strength therefore with our best Skills, God be thanked, we had it up; but before we could set our Sails we were driven into nine Fathoms, endeavouring thereupon to double a Point, to get under the Lee of this Island, the Water shoaled to five Fathoms; but when we were about it, deepened again; and we came to an Anchor in a very good Place, and it was well for us that we did; for the Wind increased to a very Storm; here we rid well all Night, and recovered our Strength again. The last Night, and this Morning it snowed and hailed, and was very cold; nevertheless I took the Boat and went ashore to look for some Creek or Cove to carry in our Ship; for she was very leaky, and the Company became very sickly and weak with much pumping and extreme Labour. This Island, when we came to the Shore, was nothing but ledges of Rocks and Banks of Sand, and there was a very great Surf on them; nevertheless I made them row through it: And on Shore I got with two more, and made them row off without the Breaches, and come to an Anchor and stay for me. I made what Speed I could to the Top of a Hill, to discover; but could not see what we looked for; and because it began to blow hard I made haste toward the Boat again. I found that it had ebbed so low that the Boat

could not, by any Means, come near Shore for me, so that we were forced to wade through the Surf and Breaches to her, in which some got such a Cold that they complained of it to their dying Day."

It was a matter of urgency to get the ship into a place of safety where she could be overhauled; she was in no condition to stand much more bad weather. She was their one means of escape. In her damaged condition she was a weakening influence on the crew. They were working at the pumps day and night to keep her afloat; they were suffering hardships severe enough without adding to them by that work; could she be beached and repaired, things would be easier for everybody; the weather was breaking up for the winter, and soon it would be impossible to do anything should they find a place where, under better conditions, they could repair her. Hence Captain James's anxiety to get ashore and search the coast.

The cold was becoming a serious factor to be considered. It had never been warm, but it was constantly getting colder, especially at night, and, with ropes and sails frozen stiff, the ship was very difficult to work in their short-handed and weakened condition. Besides that, all hands were constantly wet through. That would not have been a very serious matter in the tropics, but in the ice it was quite a different thing.

"But now it began to blow hard, so that we could but get little to Windward toward our Ship, for the Wind was shifted since we went ashore; and return to the Shore we could not, by Means of the Surf. We rowed for Life: They in the Ship let out a Buoy by a long Warp, and by God's

Assistance we got to it, and so halled up to the Ship, where we all rejoiced together. This was a Premonition to us to be careful how we sent off the Boat in such Weather."

They were very nearly caught ashore. Had they been an hour later, with the rising sea and wind, they would not have got back to the ship until the weather moderated—by which time they might well have been all dead from cold and lack of food.

"I named this Island Sir Thomas Roe's Island; it is full of small Wood, but in other Benefits not very rich, and stands in Latitude 52 Degrees 10 Minutes. At Noon we weighed, seeing an Island that bore South-south-east of us some four Leagues off, which was the highest Land we had yet seen in this Bay; but as we came near, it suddenly shoaled to six, five, and four Fathom; wherefore we struck our Sails amain, and chopped to an Anchor, but it was very foul Ground; and when the Ship was wound up we had but three Fathom Water at her Stern; as it cleared, we could see the Breaches all along under our Lee; holding it not safe therefore to stay long here, we settled every thing, in order for the Ship to fall the right Way. We had up our Anchor, got into deeper Water, and stood up again for Sir Thomas Roe's Island, which by Night we brought in the Wind of us, some two Leagues off; which did well shelter us."

If the ship had fallen or "cast" the wrong way when she got her anchor up, she would have been on the rocks before she could have been put about, so near were they under her lee. As the ship's head paid off on the wind it must be in the right direction, that is, away from the rocks.

There were strong currents and tide-rips everywhere which forced them to anchor each night.

"The 24th in the Morning it lowered, and threatened a Storm, which made us, with the windward Tide, weigh, to get near under the Island. It was very foggy Weather, and as we stood to the North-eastward we came to uncertain Depths; at one Cast twenty Fathom, the next seven, then ten, five, eight, and three; and coming to the other tack, we were worse than we were before. The Currents defeating our Judgments in the thick Fog, when we could see no Land-marks. It pleased God that we got clear of them, and endeavoured to get under the Lee of the Island; which being not able to do, we were obliged to come to an Anchor in thirty-five Fathom some two Leagues off the Shore: All this Afternoon, and indeed all Night too, it snowed, hailed, and was very cold. The 25th we weighed, and thought to get to the eastward; but as we tacked to and again, the Wind shifted so in our Teeth, that it put us within a Quarter of a Mile of the very Shore, where we chopped to an Anchor, and rid it out for Life and Death. Such Miseries as these we endured among the Sholes and broken Grounds, or rather more desperate than I have related, with Snow, Hail, and stormy Weather, and colder than ever I felt in England in my Life. Our Sheet-Anchors were down twice or thrice in a Day; which extreme Pains made a great Part of our Company sickly. All this lasted with us until the 30th of this Month September, which we thought would have put an end to our Miseries, for now we were driven among Rocks, Sholes, Overfalls, and Breaches round about us, that which way

to turn we knew not, but there rid among them in Extremity of Distress."

September had been a very bad month for them. They had never been free from peril. All the southern part of James Bay was most dangerous to a ship. It was shallow all over and full of reefs and rocks and sandbanks rising close to the surface of the water, which could often only be distinguished by the breaking of the sea upon them. The rise and fall of the tides varied with the wind; the currents were uncertain and altered in strength and direction with the changing of the tides. The weather was getting bitterly cold, with constant gales from all points of the compass, especially from the north—the coldest and most dangerous quarter. The sea had not yet begun to freeze, but it was only a matter of a little time before that would happen. Once the foreshore was sheathed in ice, it would be quite impossible to get the ship berthed in a sheltered cove even if they could find one. The fogs, too, were a constant source of danger. If not in a place where they could anchor directly the fog set in, they had to creep blindly through the rock-sown waters, trusting to the lead alone, until they chanced upon some sort of shelter or were forced to anchor in the open. Time after time the fog lifted suddenly and showed them to be surrounded by reefs; time after time they had to drop an anchor in a hurry to save themselves from stranding. Even with their anchors always ready they were not safe, for they might be too late in letting go, or their anchors might drag and put them on the rocks. It had happened before and might happen again.

It was dangerous to send the boat away in fog, especially as they had only one left. She might get lost and never recover the ship. In fog it is always difficult, and often impossible, to tell whence a sound comes. The curious acoustic properties of fog often make sound appear to come from a totally different direction from that in which it actually originates, so that firing guns to indicate the direction of the ship might well be useless. Equally impossible would it be for the ship to follow with certainty the hail from an invisible boat that was away sounding in the fog.

The constant heavy work of weighing anchor and pumping was wearing out the crew, and it was essential for them to find a cove in which to winter without the loss of a moment.

"The 1st of October was indifferently fair Weather, and with a Windward Tide our Boat went to sound a Channel, to help us out of this dangerous Place; the Boat within two Hours returned, and told us she had been a Way where there was not less than ten Fathom; we thereupon weighed, but found it otherwise, and came among many strange Races and Overfalls, upon which there went a very great and breaking Sea; as we proceeded, the Water shoaled to six Fathoms. Well! there was no Remedy, we must go forward, seeing there neither was any riding, and as little Hope to turn any way with a Sail, but that there appeared present Death in it: It pleased God so to direct us that we got through it. The Water sometimes deepened to twenty Fathom, then upon a sudden it shoaled to seven, six, and five Fathoms, so that we struck all our Sails amain,

and chopped to an Anchor, where we rid till Midnight for Life and Death, it blowing a merciless Gale of Wind, and the Sea going very lofty, and all in a Breach; the Ground was foul Ground too, insomuch that we doubted our Cable every Minute."

It was typical of what they had undergone frequently during the past three months.

"The 2d in the Morning there was little Wind, whereupon, taking the Opportunity of the Tide, the Boat went forth to sound, which returning again in two Hours told us, they had sounded about that Shole, and had found a Place of some Safety to ride in, and had been in no less Water than five Fathom. We weighed, and found our Cable galled in two Places; which had soon failed us if the Weather had continued. We stood the same Way that the Boat directed us; but it proved so calm that we came to an Anchor in 18 Fathom, hooked the Boat, and went on Shore on an Island that was on the southward of us; which I named the Earl of Danby's Island: From the highest Place in it I could see all broken Grounds and Sholes to the southward, and rather worse, than any thing better, than that which I had been in. I found that the Savages had been upon it, and that it was full of Wood. I made haste to sound the Bay, for fear of Sholes and sunken Rocks; but found it indifferent good."

Again Captain James was nearly caught on shore by a change of weather. He had great difficulty in getting on board.

"Toward the Evening it began to blow hard, wherefore

we made towards the Ship; she put forth her Buoy, and a Warp, and we rowing for Life reached her, wore to Leeward of her; but by getting hold of the Warp, we hauled up to her. The Boat we left half full of Water, ourselves being as wet as drowned Rats; and it made us the more rejoice that we had escaped so great Danger; all Night it blowing a most violent Gale of Wind, with Snow and Hail."

The sea was short and steep, or the boat would not have filled. They had had to be hauled up to the ship before by a line veered astern on a buoy. It is a time-honoured way of getting hold of a boat that cannot fetch the ship because of tide or weather.

"On the 3d, about Noon, the Wind dulled, and we had up her Anchor, standing farther into the Bay in four Fathom and an half Water; here we came again to an Anchor with our second Anchor, for many of our Men are sick, and the rest so weakened that we can hardly weigh our Sheet-Anchor. I took the Boat and went presently on Shore to see what Comfort I could find: This was the first time that I put Foot on this Island, which was the same that we afterwards wintered upon; I found the Tracks of Deer, and saw some Fowl; but that which rejoiced me most was, that I saw an Opening into the Land, as if it had been a River. To it we made with all Speed, but found it to be barred, and not a Foot Water at full Sea, on the Bar, and yet within a most excellent fine Harbour, having five Fathom Water In the Evening I returned aboard, bringing little Comfort for our sick Men, more than Hopes."

This was Charlton Island—the biggest island in the south-east corner of James Bay.

They were only just in time, for the cold descended upon them and forced them to stay where they were. And now began that famous wintering in the ice, the like of which had never been done before.

CHAPTER V

"On the 4th it snowed very hard, yet I got ashore and appointed the Boat to go to another Place (which made like a River) and to sound it; in the mean time I went with four more some four or five Miles up into the Country, but could find no Relief for my Sick, but a few Berries only. After we had well wearied ourselves, I returned to the Place I had appointed them to tarry for me; where at my coming I still found her, she having not been where I ordered her, for it had blown such a severe Gale of Wind that she could not row to Windward; thus we returned aboard with no good News."

The island was wooded and contained game, but at that time Captain James chiefly wanted scurvy-grass for his sick crew. They were getting worse and worse already; with the long winter before them and nothing to keep off the scurvy, he anticipated the worst. Even so, his expectations can hardly have approached the reality.

With the coming of the gale the weather finally broke up and the real northern cold set in for the next six months.

"It continued foul Weather with Snow and Hail, and extremely cold till the sixth, when with a favourable Wind I stood in nearer to the Shore and moored the Ship. On the 7th it snowed all Day, so that we were fain to clear it

off the Decks with Shovels, and it blew a very hard Storm withal; it continued snowing and very cold Weather, and it froze so that all the Bows of the Ship with her Beak-head were all Ice; about the Cables also was Ice as thick as a Man's Middle; the Bows of the Boat were likewise frozen half a Foot thick, so that we were fain to beat it off. The Sun shined very clear, and we bore the Top-sails out of the Tops which were hard frozen in them into a Lump, so that there they hung a sunning all Day in a very Lump, the Sun not having Power to thaw one Drop of them."

It was well for them that they did not want to use their sails, for, with the hard frost on the wet canvas, even sheeting home would hardly break out the sail, or it might rip to pieces in the process; the stiff, frozen ropes would not render through the blocks, and the ship would be unmanageable by her weakened crew.

"After the Boat was fitted we rowed towards the Shore, but could not come near the Place where we were used to land, for it was all thick Water with the Snow that had fell upon the Sands that are dry at low Water; this made it so difficult to row that we could not get through it with four Oars; yet something higher to the Westward we got ashore."

Now Captain James began to get ready for wintering. His energies were shifted from the sea to the land, and with equal skill he made his arrangements. Now he reaped the reward of his care before sailing from home. He had seen to everything himself, and had provided for his possible wintering out of reach of all humanity, when he would have to depend entirely on his own resources. He

found them to be sufficient. His chief want was lack of green food, but there were no means of preserving such things in those days.

"Seeing now the Winter to come thus extremely on upon us, and that we had very little Wood, I made them fill the Boat and went aboard, and sent the Carpenter to cut Wood, others to carry it to the Water-side whilst the Boat brought it on board; for I doubted that we should not be able to go to and again with the Boat. It was miserable cold already aboard the Ship, every Thing froze in the Hold and by the Fire-side; seeing therefore we could no longer make use of our Sails, it raised many Doubts in our Minds that we must stay and winter."

Captain James's idea was to live partly on shore and partly on board, and to use the ship as and when he found most convenient. There was little hope of again moving her, so the sick might be landed if a house could be built to take them. That was the first work that he took in hand.

"After we had brought as much Wood on board as we could conveniently stow, and enough, as I thought, to have lasted two or three Months, the sick Men desired that some little House or Hovel might be built on Shore, whereby they might be the better sheltered to recover their Healths: I took the Carpenter and others whom I thought fit for such a Purpose, and chusing out a Place, they went immediately to work upon it; in the mean Time, I accompanied with some others wandered up and down the Woods to see if we could discover any Signs of Savages, that we might the better provide for our Safeties against them; we found no Appearance that there were any upon this

Island nor near it; the Snow by this Time was half Leg high, and through it we returned comfortless to our Companions, who had all this Time wrought upon our House."

They were lucky in some ways. The island was wooded and showed signs of game. Wood was a necessity for their successful wintering; the fresh meat might help to keep off the scurvy—if they could kill any. Equally fortunate for them was it that there were no natives in the vicinity. It would need all their energies to live through the winter without having to defend themselves from possibly hostile savages. They would be terribly handicapped if parties were unable to venture out hunting or cutting wood for fear of a treacherous attack. They did not know what clever and dangerous fighters the North American Indians further south could be, but they were glad to avoid all natives on general principles. There was plenty of the unknown for them to fight against, without adding unknown man.

"They on board our Ship took down our Top-sails the mean while; and made great Fires upon the Hearth in the Hatch-way; so that having well thawed them, they folded them up and put them betwixt Decks, that if we had an Occasion they might bring them again to Yard."

"The 12th we took our Main-sail from the Yard which was hard frozen to it, and carried it on Shore to cover our House withal, having been forced to thaw it by a great Fire; by Night they had covered it, and had almost hedged it about, and the six Builders desired to lie in it ashore that Night, which I condescended unto, having

first fitted them with Muskets and other Furniture, and a Charge to keep good Watch all Night: They had on Shore two Buckhounds, a Dog and a Bitch, which I had brought out of England, to kill us some Deer, if happily we could find any."

Until this time everybody had slept on board, for they would have been frozen to death if they had passed the night ashore without any protection. It was not easy to reach the ship, for the sea close to the beach was more half-melted snow than water, and it was difficult to force the boat through the slush. It was dangerous to the health of the men continually to be wading in this freezing mixture, but it often had to be done to reach the boat. The ship herself was frozen right through and bitterly cold, but anything was better than staying ashore in the open.

"By the 13th at Night our House was ready, and our six Builders desired they might travel up into the Country to see what they could discover. On the 14th by Times in the Morning, being fitted with Ammunition and their Order to keep together, but especially to seek out some Creek or Cove for the Ship, they departed. We on board took down our two Top-masts and their Rigging, making Account, if we removed, to make use of our Fore-sail and Mizen."

Captain James had given up all hope of leaving the island before the spring, but he still thought that they might find a better shelter for the ship. Where she then lay she was exposed to every wind that blew. The reefs outside her were a great protection from a heavy sea setting in from the north, but they were not enough to make her

completely safe. She was Captain James's chief anxiety. If a good harbour could be found near by, they could take her round there under her courses. They could then easily strip and rebuild the house close to where they had berthed the ship. She was their sole avenue of escape next year, and she had to be preserved at all costs.

"The 15th in the Evening our Hunters returned very weary, and brought with them a small lean Deer in four Quarters, which rejoiced us all, hoping we should have more of them to refresh our sick Men withal; they reported that they had wandered above twenty Miles, and had brought this Deer above twelve Miles, and that they had seen nine or ten more. The last Night they had a very cold Lodging in the Woods, and so it appeared, for they looked almost starved, nor could they recover themselves in three or four Days after; they saw no Sign of Savages nor of any ravenous wild Beasts, nor yet any Hope of Harbour."

On the whole the expedition had not been a success. They had certainly killed a deer and had seen others, but their chief object, which was the discovery of a good harbour for the ship, had not been achieved. Shortly after the return of this party another set out. It was even less fortunate.

"The 19th my Lieutenant and five more desired they might try their Fortune in travelling about the Island, but they had far worse Luck than the others, although they endured all Night, and had wandered very far in the Snow, and returned comfortless and miserably disabled with the Cold. But what was worse than all this, they had lost one

of their Company, John Barton, our Gunner's Mate, who being very weary, merely to save the going about, had attempted to go over a Pond that was a Quarter of a Mile over, where when he was in the very Middle the Ice broke and closed upon him, and we never saw him more. Considering these Disasters, I resolved to fish no more with a golden Hook for fear I should weaken myself more with one Hunting than twenty such dear Deers could do me good."

This was their first death. It is surprising that they had not lost more after the terribly hard months that they had already lived through, especially when the capstan took charge while weighing anchor. But they could ill afford to lose a man. At best, they were a very small party, and there was work for all hands in keeping themselves alive and in looking after the ship. Every death limited the powers of resistance of the remainder.

"Being now assured that there were no Savages upon the Island, nor yet about us on the other Islands on the Main, as far as we could discover, and that the cold Season was now in that Extremity that they could not come to us, if there were any, we comforted and refreshed ourselves by sleeping the more securely."

It was a relief not to have to keep watch at the house, though a lookout was always kept on board in case the ship dragged her anchors, or it came on to blow hard, or she caught on fire. A ship is never without a watch, day in day out, year in year out.

"We changed our Island Garrison every Week, for other refreshing we were likely to have none till the

Spring. From the 19th to the 20th it snowed and blowed so hard that the Boat could hardly venture on Shore, and but seldom land unless the Men waded in the thick congealed Water, carrying one another; we sensibly perceived withal, how we daily sunk into more Miseries. The Land was all deep covered with Snow, the Cold strengthened and the thick Snow Water encreased, and what would become of us, our most merciful God and Preserver knew only. The 29th I observed an Eclipse of the Moon with what Care possible I could, both in the Trial of the Exactness of our Instruments, as also in the Observation. This Month of October ended with Snow and bitter cold Weather."

The weather was steadily closing in for the winter. They had not yet come to the worst of it, but already Captain James had serious misgivings as to their ultimate escape from the Bay. He had had much experience of the Arctic, but he had never before wintered in the Far North. Even he, the only experienced man in the ship, was not prepared for such terrible weather as was daily becoming more in evidence. They were at least well provisioned, but he took stock anxiously of what they had and rationed his ship's company carefully. He did not cut their allowance down unduly—there was no need that he should—but he only allowed to be issued what would be actually eaten, and he stopped all waste with an iron hand.

"On the first of November, I cast up Accounts with the Steward concerning Victuals, the third Part of our Time being this Day out. I found him an honest Man; for he gave me an Account every Week what was spent

and what was still in the Hold remaining under his Hand. I would take no Excuse for Leakage or other Waste, unless he daily shewed it to me. Every Month I made a new Survey, and every Six Months put what he spared by itself, which now was at least a Month's Provision of Bread, and a Fortnight's Pease, Fish, etc. The 3d Day the Boat endeavoured to get on Shore, but could not go through the congealed Water."

They had been six months at sea and were provisioned for eighteen. With care they could make their stores last for two years, especially if they kept their rations down from the beginning and wasted nothing. They could all have their full allowance, and, provided that there was no wilful waste, still save enough to last them for another eighteen months. That would see them through the whole of the next summer. They would then have had some months when the Bay would be free from ice. If they could not get into the South Seas or home in that time, they could never hope to get home at all.

"On the 4th they found a Place to get on Shore, and so once in two or three Days till the 9th, bringing Beer to our Men on Shore in a Barrel, which would freeze firmly in the House in one Night; other Provisions they had Store. The Ice Beer being thawed in a Kettle was not good, and they broke the Ice of the Ponds to come at Water to drink. This Pond Water had a most loathsome Smell with it, so that doubting lest it might be infectious I caused a Well to be sunk near the House; there we had very good Water, which tasted, as we flattered ourselves, like Milk. The 10th, having enough Boards for such

Purpose, I set the Carpenter to work to make a Boat which we might carry over the Ice, and make use of her wherever there was Water."

Apparently the house on shore did not give any very great protection against the frost. There was plenty of snow and, had they known how, they might have made snow huts as do the Esquimaux. These would probably have been better than the thin walls of board and sails under which they lived. Later on, when the snow had almost covered the houses, they were more comfortable. But even though the frost was severe on the surface, it had not yet penetrated very deeply into the ground, or they could not have dug their well. That came later.

Captain James gives no description of the boat that the carpenter was to make. Evidently it was to be very light and flat-bottomed, so that it could be slid easily over fairly smooth ice, and yet would be large enough to carry a crew when afloat.

"At Noon I took the Latitude of this Island by two Quadrants; which I found to be 52 Degrees. I urged the Men to make Traps to catch Foxes; for we daily saw many; some of them were pied black and white, whereby I gathered that there were some black Foxes, whose skins I told them were of great Value, and I promised that whoever could take one of them should have the Skin for his Reward; hereupon they made divers Traps, and waded in the Snow, which was very deep, to place them in the Woods."

Failing better game, the foxes would be fresh meat, and the skins were well worth bringing home. Black fox skins

were then a greater rarity than they are now, but probably not of higher price. Any man who was lucky enough to catch several with good pelts would realize a very handsome sum if he ever got home to sell them. Catching foxes also gave the men an occupation and an interest outside of their own privations, and that in itself was a great thing. None of them were idle, but this gave them something to think about, and the making and setting and examining of their traps was a relaxation from the drudgery of mere existence.

"The 12th our House took Fire, but we soon quenched it; we were obliged to keep an extraordinary Fire Night and Day, and this Accident made me order a Watch to look to it continually, since if our House and Cloathing should be burnt we should be in a woeful Condition; I lay ashore till the 17th, all which Time our Miseries increased."

In the meantime the ship was getting more and more buried under snow and ice. She was sheeted all over where it could not be cut away.

"It snowed and froze extremely, at which Time we looking from the Shore towards the Ship, she appeared a Piece of Ice in the Fashion of a Ship, or a Ship resembling a Piece of Ice; the Snow was all frozen about her, and all her Fore-part firm Ice, and so she was on both Sides, also our Cables frozen in the Hawse. I got me aboard, where the long Nights I spent with tormenting Cogitations, and in the Day-Time I could not see any Hopes of saving the Ship. This I was assured of, that it was impossible to endure those Extremities long; every Day the Men must

beat the Ice off the Cables, while some within, with the Carpenter's long calking Iron, digged the Ice out of the Hawsers: in which Work the Water would freeze on their Cloaths and Hands, and would so benumb them that they could hardly get into the Ship without being heaved in with a Rope."

So far as they could, at all costs they must keep the ship in a fit state to be moved. In any event it would take some days to get her ready for sea, even if they could put to sea at all until a thaw had loosened the ice and had given them a chance to clear her and get her gear in working order again. She was not yet frozen in for the winter, and as long as that had not happened, there was always a fear that the ice might drive in and damage her, or that a gale might wreck her on the beach.

And now came their second death.

"The 19th, our Gunner who, as you may remember, had his Leg cut off, languished irrecoverably, and now grew very weak, desiring that for the little Time he had to live, he might drink Sack altogether, which I ordered he should."

"The 22d in the Morning he died, an honest and a strong hearted Man. He had a close boarded Cabin in the Gun-room, which was very close indeed, and as many Cloaths on him as was convenient, and a Pan of Coals and a Fire continually in his Cabin, notwithstanding which Warmth, his Plaisters would freeze at his Wound, and his Bottle of Sack at his Head; we committed him, at a good Distance from the Ship, unto the Sea."

It was wonderful that he had lived so long. An opera-

tion at sea in the seventeenth century was a terrible ordeal. There were no anæsthetics; the injured man was carried below into the dark and dirty cockpit, well below the water-line, which formed the operating theatre. The operating table was a plank covered by an old sail and supported upon two barrels. There were tubs of salt water at hand in which to wash the instruments and to put the amputated limb. The unfortunate patient was held down on the plank by four lusty assistants while the chirurgeon, regardless of cries, performed the necessary operation. At one period the amputated stump was dipped in boiling tar, but so many died after being dipped and so many recovered without it, that at last the practice was given up. Possibly the dipping lessened the chances of sepsis setting in, but the shock to the system was so severe that patients often died although the operation itself had been perfectly successful. The chirurgeons worked at amazing speed; they could not afford to waste a second, for their patients were in agony all the time. Nowadays surgeons can take their time, for the patient is unconscious, and what may now take half an hour was then often performed in a matter of seconds.

"On the 23d the Ice increased extraordinarily, and the Snow lay in Flakes as it fell, much Ice also drove by us, yet nothing hard all this while. In the Evening, when the Watch was set, a great Piece of Ice came athwart the Hawser, and four more followed after it, the least of them a Quarter of a Mile broad, which in the Dark very much astonished us, thinking it would carry us out of the Harbour upon the Shole's eastern Point, which was full of

Rocks. It was newly congealed two Inches thick, and we broke through it, the Cable and Anchor enduring an incredible Stress, some time stopping the whole Ice. We shot off three Muskets, signifying to our Men ashore that we were in Distress; who answered us again, but could not help us. By ten o'Clock it was all passed, nevertheless we watched carefully, and the Weather was warmer than we had felt it any time this Month."

The drifting floes at sea would have to be seriously considered. This was the first that they had seen that was floating in the open water as a solid sheet. The sea against the beach was full of frozen snow which impeded the boat, but what they saw now was the beginning of a floe. It was the forerunner of many.

"In the Morning by Break of Day I sent for our Men aboard, who shut up the House and arrived by ten, being forced to wade through the congealed Water, so that they received the Boat with Difficulty. There drove by the Ship many Pieces of Ice, tho' not so large as the former, but much thicker: One Piece came foul of the Cable and made the Ship drive. As soon as we were clear of it we joined our Strength together, and had up our eastermost Anchor; and now I resolved to bring the Ship aground, which I had delayed for the following Reasons. First, It was all stony Ground, some Stones lying dry three or four Foot above the Water, so that it was to be suspected that it was the like all round. Secondly, It ordinarily flowed but two Foot and a half here, and if she should bed deep in the Sands we could not ever come to dig her out again, for that she would not be dry by four or five Foot. Thirdly,

It was a close Sand which might rise with the Surface, or so mount about her, that all our weak powers could not heave it away the next Spring. Fourthly, We doubted the Tides would not rise so much in the Summer as they did now. Fifthly, We could not bring her out of the Tide's Way, which ran something quick here, and the Ice beside might drive and mount up upon her, and so overset her, and tear her, and carry away her Planks and Iron Work; and also that we should have nothing left to finish our Pinnace with. Sixthly, If it blew a Storm at North-west or thereabouts, the Water would flow ten Foot and upwards, and that Wind being off the Shore, it would blow away all the Ice, and there would come in an extraordinary great Surf about the Shole to the eastward Point, which was occasioned by a deep Overfall, besides she would beat extremely, and if she were put up by the Sea or that Surf, it was very doubtful that we should ever heave her off again; for these Reasons we endured all, still hoping for some fortunate Accident: But now all our Designs we saw Foolishness, and that a great deal of Labour had been spent in vain by us. With the Flood we weighed our westermost Anchor, perceiving God's Assistance manifestly, because it happened to be fine warm Weather, otherwise we had not been able to work."

All the reasons were good ones. They were lying on the east side of the island, sheltered by the east point, which was only a short distance away to the north-east. The point was open to the north and north-west, which were the only quarters from which a heavy sea could come. Opposite them to the east and south was the mainland

across a narrow, reef-strewn strait full of small islands. They were near enough to the east point for the wash from a heavy surf breaking on the point to reach them. Captain James took the risk of beaching the ship on the open beach.

"The Wind was now South, which blew in upon the Shore, and made the lowest Tides. We brought the Ship into twelve Feet Water, and laid out one Anchor in the Offing, and another in Shole-water, to draw her on Land at Command: Our Hope also was, that some Stones that were to the Westward of us would fend off some of the Ice; we then being about a Mile from the Shore."

It was a choice of evils, and they probably chose the lesser. The ship could not remain afloat all the winter in the state in which she was—she would sink at her anchors unless she was constantly pumped; they could not do that, for the work was too heavy in their weakened state; later on the weather would have made it impossible for any crew; while the ship was afloat they could not get at the leaks to stop them. They laid out their anchors so that, by bringing the cables to the capstan, they could either heave her on shore or out into deep water again. Half their trouble arose from the shallowness of the water; she was in only twelve feet of water, and she was a mile from the beach.

"About ten o'Clock in the dark Night the Ice came driving upon us, and our Anchors came home. She drove some two Cables-length, and the Wind blowing on the Shore, by two o'Clock she came aground and stopped

much Ice, yet she lay well all Night, and we took some Rest."

"The 25th the Wind shifted Easterly, and put abundance of Ice on us. When the Flood came we encouraged one another, and drew home our Anchor by main Force, under great Pieces of Ice, our Endeavour being to put the Ship to the Shore: But to our great Discomfort, when the Half-Tide was made, the Ship drove among the Ice to the Eastward, do what we could, and so she would on the Shole of Rocks."

The ship was dragging both her anchors, for the heavy pull of the ice had loosened them in the bottom and they would not hold. She took them with her; they checked, but could not stop her. She was in great danger when thus dragging, for she might ground on a sharp-toothed reef and be stove in at any moment. She was far safer when hard and fast ashore. In any event she was in danger; the problem was how to expose her to the least. But for a day or so the weather got warmer and gave them a chance to secure her for the winter.

"As I have said before, these two Days and this Day was very warm Weather, and it rained, which it had not yet but once done since we came hither, otherwise it had been impossible we could have wrought. Withal the Wind shifted also to the South, and at the very Instant blew a hard Puff, which so continued half an Hour. I caused the two Top-sails to be had up from betwixt Decks, and we hoisted them up with two Ropes in all Haste, and we found the Ship ashore when she had not half a Cable's Length to drive on the rocky Sholes. In the Evening we

broke way through the Ice, and put an Anchor to Shoreward in five Feet Water, to keep her to the Shore is possible. Here Sir Hugh Willoughby came into my Mind, who without doubt was driven out of his Harbour in this Manner, and so starved at Sea. But God was more merciful to us."

Sir Hugh Willoughby had been lost with all hands near Kola, on the northern coast of Lapland, in 1554. He had been caught by the winter and had starved on a barren coast. Ships had sailed in search of him, but without success; no trace of him was ever found. He was but one of many.

It was a desperate move to try to sail the ship on to the beach in a strong wind, but it was the only way to keep her off the reef. The anchors were not holding, and there was nothing else to be done.

As long as the southerly wind held, she was safe. She was hard and fast aground, and, provided the water did not deepen and there was no sea, she could lie there indefinitely. The difficulty was that, as soon as the wind came round to the north or north-west, the water would rise and float her. That wind also brought in a heavy sea which would make her bump heavily on the beach. She could not stand much of that, and, if they took advantage of the high water to haul her farther up the shore, they might never get her afloat again—certainly not unless the water was heaped up by another northerly gale.

Until the bay had frozen over heavily, a northerly gale blew the ice away to the south side of the strait and left them free from it. Later, when the whole sea was full of

drifting floes, it might drive in so much at each end of the straits that it would have the opposite effect and crowd the ice on to them.

"About nine at Night the Wind came up at North-west, and blew a Storm. This Wind was off Shore, which blew away all the Ice from about us long before we were afloat. There came in a great rolling Sea withal about the Point, accompanied with a great Surf on the Shore. And now we were left to the Mercy of the Sea on the Ground. By ten she began to roll in her Deck, and soon after began to beat against the Ground. We stood at the Capstang as many as could, others at the Pumps, for we thought that every fifth or sixth Blow would have staved her to Pieces. We heaved to the uttermost of our Strength to keep her as near the Ground as we could."

"By Reason of this Wind, it flowed very much Water, and we drew her up so high that it was doubtful if ever we got her off again. She continued thus beating till two o'Clock the next Morning, and then she settled again, whereupon we went to sleep, seeing the next Tide we expected again to be tormented."

CHAPTER VI

"The 26th in the Morning Tide our Ship did not float. After Prayers I called a Consultation of the Master, my Lieutenant, the Mate's Carpenter and Boatswain, to whom I proposed, that now we were put to our last Shifts, and therefore they should tell me what they thought of it, viz. Whether it were not best to carry all our Provisions on Shore; and when the Wind should come Northerly, to draw her further off and sink her?"

Captain James was following the way of Cortez in Mexico when he burnt his ships, but for a different reason. Cortez wished to prevent deserters from leaving Mexico with news of all its wonders: Captain James sank his ship in the hope of saving her for future use, for he had no deserters to fear. He had some difficulty in getting his officers to agree to it; the remedy seemed too drastic.

"After many Reasonings, they allowed of my Purpose, and so I communicated it to the Company, who all willingly agreed to it; and so we fell to getting up our Provisions; First, of our Bread, of which we landed this day two Dryfats, with a Hogshead of Beef, having much ado to get the Boats thro' the congealed Water. In the Evening the Wind came up at North-east and East, and filled the Bay full of Ice."

"The 27th the Bay continued full of Ice, which I hoped would so continue and freeze, that we should not be forced to sink our Ship. This Day we could land nothing. The 28th at Break of Day three of our Men went over the Ice unknown to me, and the Wind coming up at West drove the Ice from betwixt us and the Shore, and most part of the Bay also; and yet not so but the Boat could go ashore for any thing. I made the Carpenter fit a Place against all sudden Extremities, for that with the North-west or Northerly Wind I meant to effect our last Project."

If the ship could be frozen in where she was, so that she would not shift if it came on to blow and the ice would not pile up on her, she would take no harm from lying only lightly on the ground. It was the fear that she would bump and break up in heavy weather before this happened that drove Captain James to scuttle her. The Carpenter did the work.

"In the Run of her on the Starboard Side he cut away the Ceiling and the Plank to the Sheathing some four or five Inches square, some four Feet high from the Keel of her, that so it might be bored out at an Instant. We brought our Bread which was remaining in the Bread-Room up into the great Cabin, and likewise all our Powder, setting much of our light dry Things betwixt Decks."

"The 29th at five in the Morning the Wind came up at West-north-west, and began to blow very hard. It was ordinary for the Wind to shift from the West by the North round about: So first I ordered the Cooper to go down into the Hold, and look to all our Casks; those that were

full to mell in the Bungs of them, and those that were empty to get up, or if they could not be gotten up to stave them; then to coil all our Cables upon our lower Tire, and to lay on our spare Anchors, and any thing that was weighty, to keep it down from rising."

The "ceiling" in a ship is not overhead: it is a light inner shell in the holds to protect the cargo. The carpenter cut through this and the heavy inner planking, leaving only the outer sheathing to be finally cut through in order to open the hold to water and to flood the ship.

The cooper drove home the bungs of the full casks so as to preserve the contents from the salt water; the empty ones he "staved"—or took to pieces. They would float like balloons in the flooded hold and would thus tend to keep the ship from sinking; they would also take up space that should be filled with the flooding water.

"By seven o'Clock it blew a Storm at North-west. The Ship was already bedded some two Feet in the Sand; and whilst that was a-flowing she must beat. This I before had in my Consideration, for I thought she was so far driven up that we should never get her off. Yet we had been so ferreted by her last Beating that I resolved to sink her right down, rather than run that Hazard. By nine she began to roll in her Deck with a most extraordinary great Sea, which I found to be occasioned by the forementioned Overfall. And this was the fatal Hour that put us to our Wits-end: Wherefore I went down into the Hold with the Carpenter, and took his Augur and bored a Hole in the Ship and let in the Water. Thus with all Speed we began to cut out other Places to bore through: but every

Place was full of Nails. By Ten, notwithstanding the lower Tire was covered with Water, for all which she began to beat in her Deck more and more, that we could not work nor stand to do any thing in her, nor would she sink so fast as we would have her, but continued beating double Blows, first abaft and then before, that it was wonderful how she could endure a Quarter of an Hour with it."

She proved to be as difficult to sink as she had been to keep afloat. She settled very slowly—far too slowly. Safety lay in getting her bedded hard and fast on the bottom before she could beat herself to pieces. It was a melancholy task, for, besides the cold and wet, it looked as though they were destroying their only hope of ultimate escape.

"By Twelve her lower Tire rose, and that did so counterbeat on the Inside, that it bored the Bulk-Heads of the Bread-Room, Powder-Room and Fore-piece, all to Pieces. And when it came betwixt Decks, the Chests fled about, and the Water did flash and fly wonderfully, so that now we expected every Minute when the Ship would open and break to Pieces. At One she beat off her Rudder, and that was gone we knew not which Way. Thus she continued beating till Three, and then the Sea came upon the upper Deck, and soon after she began to settle."

The loss of the rudder was most serious. It was banded and secured to the sternpost of the ship with heavy iron straps, which they would have great difficulty in replacing with the primitive appliances that they possessed, even if they had sufficient spare iron for the work. The rudder was the one thing that they could not be without.

They had been forced to sink the ship before they were ready to do so, because the weather had broken up again, and they dared not let her suffer another gale with more hours of heavy pounding on the beach. Thus a good deal of what they would want ashore had to be sunk in her, and it left them short of many necessary things. But it was undoubtedly the right thing to do and was unavoidable.

"In her we were fain to sink the most part of our Bedding and Cloaths, and the Chirurgeon's Chest. Our Men that were on Shore stood looking upon us, almost dead with Cold and Sorrow to see our Miseries and their own; we Looked upon them again, and both upon each other with woeful Hearts. Dark Night drew on, and I ordered the Boat to be hawled up, and commanded my loving Companions to go all into her, who expressed their faithful Affection to me, as loth to part from me. I told them my meaning was to go ashore with them, and thus lastly I forsook the Ship. We were fourteen poor Souls now in the Boat, and we imagined that we were leaped out of the Frying-pan into the Fire. The Ebb was made, and the Water extraordinary thick with Snow, so that we thought assuredly it would carry us away into the Sea. We thereupon double manned four Oars, appointing four more to sit ready with Oars; and so with the Help of God we got to the Shore, hawling up the Boat after."

They had a terrible trip from the ship to the shore. The vessel was lying nearly a mile from the beach, for there was not enough water nearer in to cover her deep enough for safety. The tide through the strait between Charlton Island and the mainland was strong, and the water thick

with semi-liquid snow. They had the greatest difficulty in forcing the boat through it, and all the time the tide was taking them down the strait into the open waters of the Bay. By the time that they got ashore they were nearly dead with cold and labour.

"One thing was most strange in this thick Water, that there went a great swelling Sea. Being arrived upon the Land we saluted our Fellows the best we could; at which Time they could not know us, nor we them, by our Habits and Voices, so frozen we were, Faces, Hair and Apparel."

The air was colder than the water. As the spray had fallen on them it had frozen so that they were coated thickly with ice. The heavy sea running in the thick water was unusual. It came from round the point, where, in the open, unfrozen water, a big sea was running. This it was that had made the ship to pound so dangerously while being sunk, and had made her immediate sinking necessary to her safety.

Now they were stranded on Charlton Island with only an open boat left to them; the ship, containing much of their gear, could not be refloated again until a thaw set in months later.

"And here I mean to take Breath a-while, after all this long and unpleasant Relation of our miserable Endeavours, craving Leave first of all to speak a Word or two in general. The Winds since we came hither have been very variable and inconsistent, and till within this Fortnight the Southerly Wind was the coldest. The Reason I conceive to be, that it blew from the main Land, which was all

covered with Snow; and the North Winds came out of the great Bay, which hitherto was open; so that we were under a South bank, that sheltered us so that we were not sensible of it."

On the island behind them to the north they had forests and small hills, which protected them from the northerly winds; in front they were open to the strait and to the wide frozen plains of the south. Captain James was probably right in his reasons.

"After we had hawled up the Boat on the 29th of November, we went along the Beach-side in the Dark towards our House, where we made a good Fire, and with it and Bread and Water we comforted ourselves, beginning after that to reason one with another concerning our Ship. I required that every one should speak his Mind freely. The Carpenter especially was of Opinion, that she was foundered, and would never be serviceable. He alledged, that she had so beaten that it was not possible but that all her Joints were loose and Seams open; and that by Reason it flowed so little Water, and no Creek being near to bring her aground, he could not devise how he might come to mend it; moreover, her Rudder was lost, and he had no Iron Work to hang on another. Some alledged, that we had heaved her up so high on the Sands that they thought we should never get her off again, and that they were assured she was already docked three Feet; others, that she lay in the Tide's Way, and that the Tides might tear her to Pieces off the Ground. Besides which, two of our Anchors we could not now get from under the Ice, which, when the Ice broke, would tear them to Pieces,

and then we should have no Anchors to bring us home withal, provided we got off the Ship, and that she proved sound also."

They were "comforting" themselves on bread and water round a fire at this time. It was poor fare for the boat's crew after their deadly trip, but it was all that they had and was better than nothing.

The discussion was an anxious one. None really knew the state of the ship. The carpenter was the most experienced, and therefore the most likely to be right. It was his special province to understand shipbuilding and the strains to which a ship might be subjected. On such a matter his opinion was entitled to great respect. On the question of the rudder, he was the only one able to express any authoritative opinion at all. He took the gloomiest view of their chances.

Another thing which threw doubt on all their calculations was that none knew precisely the conditions of the water or the nature of the bottom on which the ship lay. It was quite impossible to tell what would be the effect of the tide. An obstruction in a tide-way will often have the most amazing results. Even to-day, when so much more is known and after the subject has been exhaustively studied, what happens is often the exact opposite of what was expected.

Either opinion might be right. The scour of the tide might wash away the sand from under her and turn her over into the hole thus made, to her complete destruction. It was not only possible, but probable. Equally probable was it that the tide would work the sand up round her

until she was bedded in so deeply that she could never be got out. In either case she could never be used as a ship again, though the material loss would be greater in the former case than in the latter. If she was broken up by the tides, nothing of her could be recovered and used; if she was merely bedded into the sand, she could be stripped and partially broken up. What was salved could then be used as required for other purposes.

Captain James listened to the various opinions of his crew and "comforted them the best I could to this Effect." He preached them a lengthy sermon on keeping cheerful and making the best of things, but he expressed no opinion on the state of the ship or on the possibilities of their own escape. He suggested an alternative, however, in the highly probable event of the ship's never being fit for service again.

"Admit the Ship be foundered, (which God forbid, I hope for the best) yet have those of our own Nation and others, when they have been put to those Extremities, even out of the Wreck of their lost Ship built a Pinnace, and returned to their Friends again. If it be objected that they have happened into better Climates, both for Temperateness of the Air, and for pacific and open Seas, and provided withal of abundance of fresh Victuals, yet there is nothing too hard for courageous Minds, which hitherto you have shewn, and I doubt not will still do to the uttermost of your Power."

"They all protested to the utmost of their Strength, and that they would refuse nothing that I should order them to do to the utmost Hazard of their Lives. I thanked

them all, and to the Carpenter for his cheerful Undertaking I promised to give him so much Plate presently as should be worth £10 and if so be I went to England in the Pinnace, I would give him her freely, and £50 in Money over and above, and would moreover gratify all them that I should see industrious. Thus we resolved to build us a new Pinnace with the Timber we should get upon the Island, that so in the Spring, if we found the Ship not serviceable we might tear her up, and plank her with the Ship's Planks; and so for this Night we settled ourselves close about the Fire, and took some Rest till Day-light.'

It was a great work that they undertook. There was plenty of timber in the island, but it needed much skill and hard work under bitterly trying conditions to build from it a pinnace big enough to carry twenty men across the Atlantic in safety. In warmer latitudes it would not have been so difficult; the chief obstacles lay in their lack of food and in the weather. If they could strip the planking from the ship it would save them a lot of labour, for they would not have to saw and shape the planks for the pinnace to any great extent. Merely to fit planks already cut, and which had already been used to plank a ship, was a trifling matter beside the work of cutting them from newly felled trees.

On the following day they started work.

"The 30th, betimes in the Morning, I caused the Chirurgeon to cut off my Hair short, and to shave away all the Hair of my Face, for it was become intolerable, and because it would be frozen so great with Icicles. The like did all the rest, and we fitted ourselves to work. The first

Thing we were to do was to get our Cloaths and Provisions ashore, and therefore I divided the Company. The Master and a convenient Company with him were to go aboard and get Things out of the Hold. The Cockswain with his Gang were to go into the Boat, to bring and carry Things ashore. Myself with the rest to carry them half a Mile through the Snow, unto the Place where we intended to build a Store-house. As for the heavier Things, we proposed to lay them on the Beach."

The first thing to do was to strip the ship of everything that they might need ashore. When the boat's crew had finally left her they had been unable to salve many things that they wanted. The ship had been flooded to her upper deck, but when the water dropped they might hope to get at a lot of what they had been forced to leave behind.

"In the Afternoon the Wind was at South-south-west, and the Water veered so low an Ebb that we thought we might get something out of the Hold. We launched out our Boat therefore, and with Oars got through the thick congealed Water. It froze extreme hard, and I stood on the Shore with a troubled Mind, thinking verily that with the Ebb the Boat would be carried into the Sea, and then we were all lost Men: But by God's Assistance they got all safe to the Ship, and made a Fire there to signify their Arrival on board. They fell presently to Work, and got something out of the Hold upon the Decks, but Night coming on, they durst not venture to come on Shore, but lay on the Bed in the great Cabin being almost starved."

The boat's crew had taken no food or bedding with them, and, under such conditions, the occasion was one

of some peril and more discomfort. By huddling together they managed to keep some warmth in them, though it was a bitterly cold night.

Ships of the early part of the seventeenth century still curved up aft considerably, so that, although the upper deck was under water, the main cabin and all the after parts were dry and well above the sea. Thus the men got some shelter and a bed; without it they would not have lived through the night, for it proved to be one of the coldest nights that they had so far experienced. By the morning the sea between the ship and the shore was frozen over.

"The 1st of December was so cold that I went the same Way over the Ice to the Ship where the Boat had gone Yesterday. This Day we carried upon our Backs in Bundles five hundred of our Fish, and much of our Bedding and Cloaths, which we were fain to dig out of the Ice."

For the time both ship and boat were frozen in, and, had that lasted, it would have suited them very well. They could carry or drag their gear as easily over the ice as they could convey it by boat—probably more easily and with less risk. Getting the heavily laden boat through the half-frozen snow-water against a strong tide was dangerous and laborious work. But the frost was not to last.

"The 2d was mild Weather, and some of the Men going over the Ice fell in, and very hardly recovered: so that this Day we could land nothing, neither by Boat nor Back. I put them therefore to make us a Store-house on Shore. In the Evening the Wind came up at West, and the Ice broke and drove out of the Bay. It was very deep and

large Ice, that we were afraid it would have spoiled the Ship."

The ice had driven into the strait in big, thick lumps, which had probably broken off icebergs or heavy floes that were adrift in the deeper waters of Hudson Bay. These could not get so close in to the shore owing to their great draft of water, but the smaller pieces from them could pass over the shallows without grounding. These smaller pieces stranded in quantities round the ship, where they soon froze into a solid mass in the bitter night frosts, so that the men could pass over them to the ship on foot. When the thaw loosened them, they were quite big enough to do much damage to the ship if they ran foul of her in the tide.

"The 3d Day there were divers great Pieces of Ice that came athwart the Ship and she stopt them, yet not so as we could go over them. We found a Way for the Boat, but when she was laden she drew four Feet Water, and could not come within a flight Shot of the Shore; the Men therefore must wade through the congealed Water, and carry Things out of the Boat upon their Backs. Every time they waded in the Ice it was most lamentable to behold. In this extreme cold Evening they cut away as much Ice from about the Boat as they could, and picked it with Hand-spikes out of her, and endeavoured to hoist her into the Ship, there being small Hopes that she could go to and again any more: But use what Means they could, she was so heavy that they could not hoist her in, but were forced to leave her in the Tackles by the Ship-side."

A flight shot with an arrow was somewhere

about 300 yards, so the men had to wade 600 yards through the icy water for every load that they brought ashore. How it was that they did not drop with the cold and drown was a mystery. Apparently on this occasion they did not suffer from frost-bite. That came later.

The boat was in a dangerous place. They had to leave her hanging from the falls at about the water level, where any loose piece of ice might crush her against the ship's side.

"The 4th being Sunday we rested and performed the Sabbath-Duties of Christians. The 5th and 6th were extreme cold, and we made Bags of our Store-Shirts, and in them we carried our loose Bread over the Ice on Shore upon our Backs: We also digged our Cloaths and new Sails with Hand-spikes of Iron out of the Ice, and carried them ashore, which we dried by a great Fire. The 7th Day was so exceeding cold, that our Noses, Cheeks and Hands, did freeze as white as Paper. The 8th and 9th it was extremely cold, and it snowed much; yet we continued our Labour in carrying and rolling Things on Shore. In the Evening the Water raised the Ice very high, and it broke two Thawghts of our Boat, and broke in the Side of her, but for that Time we could not help it."

The three days' frost hardened the ice round the ship again, so they could pass over it carrying their gear. Then they got their first taste of frost-bite. The flowing tide wrecked their boat, but they did not need her—in fact, they could not use her, because all the sea was solid ice. She could be repaired later, when opportunity offered.

"The 10th our Carpenter found Timber to make a Keel and a Stern for our Pinnace, the rest wrought about our Provisions until the 13th Day, and that we spent in digging our Boat out of the Ice, which we were fain to do to the very Keel, and dig the Ice out of her, then we got her up; in doing which many of our Noses, Cheeks and Fingers, did freeze. The Cold now encreased most extremely. By the 19th we could get no more Things out of the Hold, but were fain to leave five Barrels of Beef and Pork, all our Beer, and divers other Things, which were all frozen in her. The 21st was so cold that we could not go out of the House. The 23d we went to get our Boat ashore, running her with our Oars, but by ten o'Clock there came such a thick Fog that it was as dark as Night. I made them give over, and we made what Haste we could to the Shore, which we had much ado to find without losing one another. At last we met all at the House, the most miserable and frozen that can be conceived. Upon divers the Cold had raised Blisters as big as Walnuts. This we imagined to come by Reason that they came too hastily to the Fire. Our Well was now frozen up, so that dig as deep as we would, we could come at no Water. Melted Snow-Water is very unwholesome, either to drink or to dress Victuals: It made us so short-breath'd, that we were scarce able to speak."

Now at last the Arctic cold had really set in; until then they had only had a hint of it. Everything froze solid. They worked with difficulty; they could hardly breathe; the slightest exposure meant certain frost-bite. And this lasted for months; but they lived and worked through it all

The ship was safe—fast locked in the ice—but nothing could be got out of her. Everything in her was all frozen together into one solid mass that would turn the point of a pick-axe. It was time wasted to go out to her.

They had made their houses fairly comfortable, but nothing could keep out that terrible cold.

"All our Sack, Vinegar, Oil, and every thing else that was liquid, was now frozen as hard as a Piece of Wood, and we cut it with a Hatchet. Our House was all frozen on the inside; and it froze hard within a Yard of the Fire-side."

And this was in the latitude of London!

"When I landed first upon this Island, I found a Spring under a Hill's side, which I then observing, I caused some Trees to be cut, for Marks to know the Place again by. It was about three Fourths of a Mile from our House. I sent three of our Men which had been with me thither. Upon the 24th these wandering through the Snow, at last found the Place, and shoveling away the Snow they made Way to the very Head of it. They found it spring very strongly, and brought me a Can of it, for which I was right joyful. This Spring continued all the Year, and did not freeze, but that we could break the Ice and come to it. We laboured very hard these three or four Days to get Wood to the House, which we found to be very troublesome, through the deep Snow."

The finding of good water that never froze was a god-send, even though it was so far away that it was difficult to reach through the heavy snow.

It was Christmas 1631, and they kept it as well as they

could. It was not a very cheerful time. The captain was full of anxiety; the crew weary and in ill-health.

"We then settled our Bedding and Provisions, providing to keep Christmas-Day holy, which we solemnized in the joyfullest Manner we could. So likewise did we St. John's Day, upon which we named the Wood we did winter in, in Memory of that honourable Knight, Sir John Winter, Winter's Forest."

CHAPTER VII

The houses that they had built, and in which they proposed to pass that bitter winter, were not good houses, but they were the best that they could contrive. The snow helped them, for it partly covered the walls and roofs, thus rendering them more weather-proof and warmer. The poor shelter so afforded was enough to give the men a chance of life.

"And now, instead of a Christmas Tale, I will describe the House that we did live in, with those adjoining. When I first resolved to build a House, I chose the warmest, and convenientest Place, and the nearest the Ship withal. It was among a Tuft of thick Trees, under a South Bank, about a flight Shot from the Sea-side. True it is, that at that Time we could not dig into the Ground to make us a Hole or Cave in the Earth, which had been the best Way, because we found Water digging within two Feet, and therefore that Project failed; it was a white light Sand, so that we could by no means make up a Mud-Wall."

Later on the ground froze to a depth of many feet, but with the water so close to the surface, they could not dig at all; the ground became like rock.

"As for Stones there were none near us; besides we were all now covered with the Snow. We had no Boards

for such a Purpose, and therefore we must do the best we could with such Materials as we had about us. The House was square about twenty Feet every Way, as much namely as our main Course could well cover. First we drove long Stakes into the Earth, round about which we wattled with Boughs, as thick as might be, beating them down very close. This, our first Work, was six Feet high on both Sides, but at the Ends was almost up to the very Top. There we left two Holes for the Light to come in at, and the same Way the Smoak did vent out also. Moreover I caused, at both Ends, three Rows of Bush Trees to be stuck up, as close together as possible. Then, at a Distance from the House, we cut down Trees, proportioning them into Lengths of six Feet, with which we made a Pile on both Sides, six Feet thick, and six Feet high; but at both Ends ten Feet high, and six Feet thick. We left a little low Door to creep into, and a Portal before that, made with Piles of Wood, that the Wind might not blow into it. We next fastened a rough Tree aloft, over all, upon which we laid our Rafters, and our main Course, over them again; which lying thwartways over all, reached down to the very Ground on either Side; and this was the Fabric of the outside of it."

All this was done before the frost had set in very hard, or it would have been impossible; they could not have driven in the stakes. Though the walls were thick, there was little cold-resisting substance in them. They were made largely of bushes and branches which were full of air-spaces that allowed the cold to penetrate. They formed, however, a good support for the mainsail that covered the

whole thing. When covered deeply with snow, this gave them a reasonably habitable house.

"On the inside we made fast our Bonnet Sails round about, then we drove in Stakes, and made us Bedstead Frames, about three Sides of the House, which Bedsteads we doubled one under another, the lowermost being a Foot from the Ground. These we first filled with Boughs, then we laid our Spare Sails on that, and then our Bedding and Cloathes. We made a Hearth in the Middle of the House, and on it made our Fire; some Boards we laid round our Hearth to stand upon, that the cold Damp should not strike up into us. With our waste Cloaths we made us Canopies and Curtains, others did the like with our small Sails."

The "bonnets" were strips of canvas that were laced to the foot of the courses, or lower sails in the ship, to increase their area in fine weather. To take in a reef they unlaced a bonnet. The bunks were fitted in tiers like those in a ship, one above the other. They were built close against the inner lining of canvas and well away from the fire. If placed nearer to the fire there would have been risk of their catching alight from stray sparks, and they would have been in the way of anyone moving about in the hut. But close to the walls and away from the heat, they were terribly cold.

"Our second House was not more than twenty Feet Distant from this, and made, for the Wattling, much after the same Manner, but it was less, and covered with our fore Course. It had no Piles on the South-side, but, in lieu of that, we piled up all our Chests on the inside; and,

indeed, the Reflex of the Heat of the Fire against them did make it warmer than the Mansion-House. In this House we dressed our Victuals, and the subordinate Crew did refresh themselves all Day in it."

The chests formed the best kind of wall to keep the heat in and the cold out. The back and front were like two air-tight walls with the space between them packed with clothes, which were a perfect cold-resisting substance. The men before the mast had the best house of all.

"A third House, which was our Store-house, was twenty-nine Paces off from this, for fear of firing."

"This House was only a rough Tree fastened aloft, with Rafters laid from it to the Ground, and covered over with our new suit of Sails. On the Inside we had laid small Trees, and covered them over with Boughs, and so stored up our Bread and Fish in it, about two Feet from the Ground, the better to preserve them; the other things lay more carelessly."

This was only a lean-to store-house where the cold would do no harm. If it caught fire, however, they would be lost, for all their provisions were stowed there, and they were getting nothing out of the country on which to live. The only things that they got throughout the winter were wood and water.

"Long before Christmas our Mansion-House was covered thick over with Snow, almost to the very Roof of it; and so likewise was our second House, but our Store-house all over, by Reason we made no fire in it."

"Thus we seemed to live in a Heap and a Wilderness of Snow; for out of our Doors we could not go, but upon the

Snow, in which we made us Paths Middle deep in some Places, and in one special Place the Length of ten Steps. To do this, we must shovel away the Snow first, and then, by treading, make it something hard under Foot. The Snow, in this Path, was a full Yard thick under us. And this was our best Gallery for our sick Men, and for my own ordinary Walking; and both Houses and Walks we daily accomodated more and more, and made fitter for our Uses. On the 27th we got our Boat ashore, and fetched up some of our Provisions from the Beach-side, into the Store-house, and so by degrees did we with the rest of our Provisions, with extremity of Cold and Labour, making Way with Shovels through the thick Snow, even from the Sea-side to our Store-house; and thus concluded we the old Year 1631."

The worst of the winter was yet to come, for the snow lasted well on into the summer. It took much summer heat, and long continued, to thaw the heavy ice and the rock-hard, frozen ground. Only when that had happened could they hope to break camp and leave this land of desolation on their voyage home. They were confined to their beaten trails through the snow, and they had to tread or shovel these out afresh after every heavy fall. None of them knew the use of snow-shoes or skis, though such things were well known to the regular inhabitants of the frozen North. The English had not then had enough intercourse with them to have learnt their methods of progression over the snow, or how they made themselves comfortable in the bitter cold that was to them a yearly occurrence. Had they known the arts of the Esquimaux or

the Lapp, primitive as they were, life would have been easier for them.

"The first of January, 1632, and for the most Part all the Month, was extreme cold. The 6th I observed the Latitude with what Exactness I could, it being clear sunshiny Weather, which I found to be 51 Degrees 52 Minutes; this Difference is by Reason that there is a great Refraction. On the 21st I observed the Sun to rise like an Oval along the Horizon; I called three or four to see it, the better to confirm my Judgment; and we all agreed that it was twice as long as it was broad. We plainly perceived withal, that by Degrees, as it got up higher, it also recovered its roundness."

As the sun rose high and the rays of light struck down at a sharper angle through the earth's atmosphere, the distortion—or refraction—naturally grew less. When the sun was on the horizon, the difference in the altitudes of the upper and lower limbs was enough to give a different refraction for each, thus making the sun appear to be oval. As it rose the difference disappeared, and the sun again resumed its normal appearance.

"The 30th and 31st there appeared, in the Beginning of the Night, more Stars in the Firmament than ever I had before seen, by two Thirds; I could see the Clouds in Cancer full of small Stars. About ten o'clock the Moon rose, and then a Quarter of them were not to be seen. The Wind, for the most Part of this Month, hath been Northerly, and very cold. The warmest of which Time we employed ourselves in fetching Wood, working upon our Pinnace, and other things. In the Beginning of this

Month the Sea was all firmly frozen over, so that we could see no Water any where."

Then Captain James gives his views as to why the land and sea, in so comparatively low a latitude, should become so hard frozen in winter.

"I hope it will not seem tedious to the Readers, if I here deliver my Opinion, how this Abundance of Ice comes to be ingendered."

"The Land that incircles this great Bay, which lies in a broken irregular Form, making many little Shole-Bays and Guts, full of Islands and dry Sands, is, for the most Part, low and flat, and hath Sholes adjoining to it half a Mile or a Mile, that are dry at low Water. Now you must know that it flows half Tide, that is, from whence the Flood cometh, the Water returneth two Hours before it is high Water, or full Sea. It seldom rains after the Middle of September, but then falls Snow, and that Snow will not melt on the Land, or Sands. At low Water, when it snows, the Sands are all covered over, which the half Tide carries twice in four Hours into the great Bay, which is the common Rendezvous of it. Every low Water the Sands are left clear, to gather more to the increase of it."

"Thus it daily gathers together in the Manner, till the latter End of October; and by that Time it brings the Sea to that Coldness, that as it snows, the Snow will lie upon the Water in Flakes, without changing Colour; but with the Wind is wrought together, and as the Winter goes forward, it begins to freeze upon the Surface of it, two or three Inches or more in one Night; which being carried with the half Tide, meets with some Obstacle, and then it

crumples, and so runs upon itself, that in a few Hours it will be five or six Feet thick. The half Tide still flowing, carries it quite away, that by December it is grown to an infinite Multiplication of Ice. And thus, by this storing of it up, the Cold gets the Predominancy in the Sea, which also furnishes the Springs and Water in the low flat Lands, that it cools it like itself. This may appear by our Experience; though in all this I freely submit myself to the more Learned."

Captain James's explanation is plausible, but it seems to be more probable that the comparatively small volume of water was quickly brought to about freezing-point by the intense general coldness arising from the huge area of the surrounding land, which lost its temperature very rapidly when the heat of the sun was withdrawn.

His suggestion is that the great quantity of snow, being constantly washed off large flat areas into the sea, soon brought it to freezing-point, and that the sea then froze the land as its waters percolated through the porous, low-lying soil. No doubt the snow on the wide stretches of foreshore had some trifling effect, but the general action was the other way about; the land cooled the sea, not the sea the land. Whatever the reason, it was crippling to the shivering ship's company so miserably marooned.

"Our Men found it more mortifying Cold to wade through the Water in the Beginning of June, when the Sea was full of Ice, than in December, when it was increasing; our Well, out of which we had Water in December, dried up in July; the Ground, at ten Feet deep, was frozen. The Quantity of Ice may very easily be

made to appear by mathematical Demonstration; and yet I am not of the Opinion that the Bay freezes all over. For the 21st the Wind blowing a Storm at North, we could perceive the Ice to rise something in the Bay."

In winter Hudson Bay fills with icebergs, but it does not freeze over completely. All the foreshore, however, becomes a solid mass of ice for a considerable distance from the land. So far as it affected the ship's company, it made no difference whether the whole bay was frozen over or whether the ice only extended along the shore. They could not get to sea, and, except for that, salt water was of no use to them. In fact, free water was a danger while the ship was ice-bound, for it was very likely to move the ice and wreck her. Captain James had had bitter experience of that during his first weeks on Charlton Island.

"February 1632. The Cold was as extreme this Month as at any time we had felt it this Year, and many of our Men complained of Infirmities; some of sore Mouths, all the Teeth in their Heads being loose; their Gums swoln with black rotten Flesh, which every Day was to be cut away; the Pain was so great, that they could not eat their ordinary Meat; others complained of Pains in their Heads and their Breasts; some of weakness in their Backs; others of Aches in their Thighs and Knees; and others of Swellings in their Legs. Thus were two thirds of the Company under the Chirurgeon's Hands; and yet, nevertheless, they were forced to work daily, and go abroad to fetch Wood and Timber, notwithstanding most of them had no Shoes to put on. Their Shoes, upon their coming to the Fire out of the Snow, were burnt and scorched upon their Feet,

and our Store-shoes were all sunk in the Ship. In this Necessity they made this shift to bind Clouts about their Feet, and endeavoured, by that poor help, the best they could, to perform their Duties. Our Carpenter likewise by this time fell sick, to our great Discomfort."

The dreaded scurvy had them in its grip. They had had no fresh food for months; the last that they had had was the small deer shot by the exploring party soon after they had landed. Since then, they had lived on their bread and salt fish with very little else. That, together with the intense cold and ceaseless man-killing labour, had worn them out. It is surprising that virulent scurvy had not made its appearance before, especially as some of them had been touched with it before they began their wintering. But they endured that as they endured every other affliction that smote them. We are not told that they suffered from frost-bite at this time, but it seems hardly possible that they can have avoided it in their shoeless state. The clouts—or wrappings—were of use, but, unless very thick, which would impede their walking, the cold would penetrate. It was greatly in their favour that their feet were never wet from the snow; it was far too cold for that. But for that, they would probably have suffered from constant severe frost-bite.

"I practised some Observations by the rising and setting of the Sun; calculating the Time of his rising and setting, by very true running Glasses. As for our Clock and Watch, notwithstanding we still kept them by the Fire-side in a Chest, wrapped in Cloths, yet were they so frozen, that they could not go. My Observations by these Glasses, I

compared with the Stars coming to the Meridian. By this Means we found the Sun to rise twenty Minutes before it should; and in the Evening to remain twenty Minutes, or thereabouts, longer than it should; all this by Reason of the Refraction."

Even in that weather Captain James did not waste his time, but took observations (a very chilly occupation in hard weather) to keep his hand in. But he always returned to the terrible cold: that overshadowed everything.

"Since I have spoken so much of the Cold, I hope it will not be taken ill, if I, in a few Words, make it some Way appear to our Readers."

"We made three Differences of the Cold, all according to the Places. In our House, in the Woods, and in the open Air, in our going to the Ship. For the last, it would be sometimes so extreme, that it was almost unindurable; no Cloaths were Proof against it; no Motion could resist it; it would so freeze the Hair on the Eye-lids, that we could not see; and I verily believe that it would have stifled a Man in a very few Hours. We daily found, by Experience, that the Cold in the Woods would freeze our Faces, or any Part of our Flesh that was bare, but it was not so mortifying as the other. Our House, on the outside, was covered two third Parts with Snow, and, on the inside, frozen and hung with Icicles. The Cloaths on our Beds would be covered with Hoar-Frost, which in this Habitation was not far from the Fire. The Cook's Tubs, wherein he watered his Meat, standing about a Yard from the Fire, and which he all Day plied with Snow Water; yet in the Night Season, whilst he sleeped but on watch,

they would be firm frozen to the very Bottom. And therefore he was forced to water his Meat in a Brass Kettle, close adjoining to the Fire. And I have many times both seen and felt, by putting my Hand into it, that Side which was next the Fire very warm, and the other Side an Inch frozen."

This was inside the second house, which was built like the first and was covered by the ship's foresail.

"The Chirurgeon, who had hung his Bottles of Sirrups, and other liquid things, as conveniently as he could, to preserve them, had them all frozen. Our Vinegar, Oil, and Sack, which we had in small Casks in the House, were all firm frozen. It may further, in general, be conceived, that in the Beginning of June the Sea was not broken up, and the Ground was yet frozen; and this we found by Experience, in the Burying of our Men, in setting up the King's Standard, towards the latter End of June, and by our Well; in coming away in the Beginning of July, at which Time, upon the Land, for some other Reasons, it was very hot Weather."

The only time when the ground was completely thawed was in July and August, with a week or so in June and September. The winter frost had bitten so deeply into the ground that the heat took a long time to penetrate, and the big masses of the ice-floes took an equally long time to dissolve. For over nine months of the year the land was frozen.

By the beginning of March they had passed the worst of the winter, for the sun was coming north again and was gaining power daily. They still had another four months

to wait, however, before they could put to sea, but during the latter part of that time they might hope for better conditions.

They had the pinnace to build, unless they could float and refit the ship, and they could not wait for the weather to improve before they went on with the work. They would have to take the first chance that offered to get away from the island as soon as the weather improved. If they still had to build the pinnace, or even to do very much to her before sailing, they would miss their chance and have to winter again in the Bay. In that case their fate was sealed.

"March 1632. The first of this Month, being St. David's Day, we kept Holiday, and solemnised it in the Manner of the ancient Britons; praying for the Happiness of his Royal Highness, Charles, Prince of Wales, afterwards Charles II. The 15th one of our Men thought he had seen a Deer, whereupon he, with two or three more, desired to go to see if they could take it. I gave them leave, but they returned in the Evening so disabled with Cold, which rose up in Blisters under the Soles of their Feet, and upon their Legs, to the bigness of Walnuts, that they could not recover their former State, which was not very well, in a Fortnight after."

"The 26th three others also desired to go out to try their Fortunes, but they returned worse disabled, and even almost stifled with the Cold. This Evening the Moon rose in a very long Oval along the Horizon."

A freshly killed deer would have been a godsend to them. Their chief need was fresh food, and it would have

done something to put the scurvy-ridden unfortunates into better health. One deer among twenty men would not have done much, but any relief was better than none. The chance of a kill was worth the risk of frost-bite, especially as other deer might be discovered and, with luck, killed.

"By the last of this Month the Carpenter had set up seventeen Ground Timbers, and thirty four Staddles, and, poor Man, he proceeded the best he could, though forced to be led to his Labour. In short, all this Month it was very cold, the Wind about the North-west, the Snow as deep as it was all this Winter."

The carpenter was in a very bad way. He was the one skilled boat-builder on whom they could rely, so his health and strength were vital to the well-being of the company. Without him, they would have little chance of building a pinnace big and strong enough to cross the Atlantic. They might possibly build a boat to take them north as far as Port Nelson, but they wanted something better than that. Ships were not very frequent visitors to the southern parts of Hudson Bay, and the year might well pass without any vessel's coming to Port Nelson to relieve them, especially as it would not be known that they were there.

"But to answer an Objection that might be made; you were in a Wood (some Men may say unto us) and therefore you might make Fire enough to keep you from the Cold. It is true, we were in a Wood, and under a South Bank too, or otherwise we had all starved."

"But I must tell you withal, how difficult it was to have Wood in a Wood. And first I will make a Muster of

the Tools we had. The Carpenter, in his Chest, had two Axes indeed, but one of them was spoiled in cutting down Wood to pile about our House before Christmas. When we first landed we had but two whole Hatchets; which, in a few Days, broke two Inches below the Sockets. I called for three of the Cooper's Hatchets. The Carpenter's Ax, and the Cooper's best Hatchet I caused to be locked up; the other two Hatchets to be new helved; and the Blades of the two broken Hatchets to be put into a cleft Piece of Wood, and then to be bound about with Rope Yarn, as fast as might be, which was to be repaired every Day; and these were all the cutting Tools we had. Besides, the 6th of February the Carpenter had out his best Ax about something, and one of the Company, in his Absence, by his indiscreet handling of it, broke that too two Inches below the Socket; we were henceforward forced to use these Pieces of Tools the best we could. Wherefore I gave Orders that the Carpenter should have one of the Cooper's Hatchets, they that looked for Timber in the Woods to have the other; and they that cut down Wood to burn, were to have the two Pieces; and this was before Christmas."

The axes were tools of great value. All the felling of trees was done with the axe, and almost all the shaping of the main timbers for the pinnace. It seems as though the hatchets had solid heads with steel projecting lugs, between which the wooden handle was inserted and where it was riveted in place. If these lugs broke they would have to refit the heads as, in fact, they did, for there was no hole in the head into which they could insert a new haft. Had

they been made like a modern axe, with a hole in the head, rehafting would have been a simple matter. They needed good tools to fell the frozen trees, for even the wood froze like rock and put a very heavy strain on the cutting tools.

"The three that were appointed to look crooked Timber, stalked and waded sometimes on all fours through the Snow, and where they saw a Tree likely to fit the Mould, they heaved away the Snow, and then saw if it would fit the Mould, and then they must make a Fire to it to thaw it, otherwise it could not be cut; then they cut it down and fit it to the Mould, and then with other Help get it home, a Mile through the Snow. Now, for our firing we could not burn green Wood, it would smoke so intolerably; nay, the Men would rather starve without in the Cold than sit by it; as for the dry Wood, that also was bad enough, for it was full of Turpentine, and would send forth such a thick Smoak that it would make abundance of Soot, which would make us all look as if we had been free of the Company of Chimney-Sweepers."

The trees outside were frozen into hard blocks of ice that would turn the edge of an axe unless they were first thawed. It was slow, painful work that ruined their tools. Time after time they would clear trees of snow, and, after thawing and felling them, would find them to be useless through their being flawed or having other defects.

The party sent to cut firewood had to find the driest dead trees, and that meant much fruitless searching and heavy work attending on success.

"Our Cloaths were quite burnt to Pieces about us, and, for the most part, we were without Shoes. But to our

Fuelers again: They must first, as the former, go up and down the Snow till they saw a Tree standing, for the Snow covered those that were down-fallen; then they must hack it down with their Pieces of Hatchets, and then others must carry it home through the Snow. The Boys with cutlasses must cut Boughs for the Carpenter; for every Piece of Timber that he worked, must first be thawed in the Fire, and he must have a Fire by him or he could not work. And this was our continual Labour throughout the forementioned Cold, besides our tending upon the Sick, and other necessary Employments."

Thus they passed their time, day in day out, month in month out. The constant back-breaking toil, in cold such as none of them had ever dreamed of, wore out their ill-fed, scurvy-ridden bodies. They had barely the hope of ultimate escape to ease their anxious minds. Under such conditions they grew weaker and weaker. First one, then another, would fail in the day's work; and once they had failed, some never worked again.

"April 1632. The first of this Month being Easter-day, we solemnized it as religiously as God gave us Grace to do. Both this Day, and the two following Holidays were extreme cold; and now sitting all about the Fire, we reasoned and considered together about our Estate; we had five Men, whereof the Carpenter was one, not able to do any thing; the Boatswain and many more were very infirm and of all the rest we had but five that could eat their ordinary Allowance. The Time and Season of the Year came on apace, and the Cold very little abated. Our Pinnace was in an indifferent forwardness, but the

Carpenter grew worse and worse. The Ship, as we then thought, lay all full of solid Ice; which was Weight sufficient to open the Seams of any new and sound Vessel, especially one that had lain so long upon the Ground as she had done. In short, after many Disputes and laying open of our miserable and helpless Estates, I resolved upon this Course, that notwithstanding it was more Labour, and the Men weaker and weaker, yet with the first warm Weather we would begin to clear the Ship, that we might have the Time before us to think of some other Course."

Their splendid carpenter, the one next in importance to Captain James himself for their safety, was crippled with raging scurvy. He was worse than the others, though all were feeble. He could not work himself; he could only direct others. He forced himself to do what little he could, working always by a fire; but the construction of the pinnace was greatly delayed, and she was not nearly so far advanced as she should have been. They were working against time. At all costs they must get away at the first opportunity, for another might never come. If they missed their chance, they would leave their bones on Charlton Island. Only five men were fit for work; the rest did what little they could.

CHAPTER VIII

But the summer was coming, though the cold had not yet begun to lessen. Easter was past; the sun was already north of the Line and was daily coming further north. They did not know when the thaw would set in, but they were on the look out for it. When it came it would come quickly, and they must be ready to take instant advantage of it.

As soon as Captain James decided to dig out the ship, he set the men to preparing the tools required for the work.

"This being ordered, we looked to those Tools we had to dig the Ice out of her; we had but two Iron Bars on Shore, the rest were sunk in the Ship, and one of them was broken too."

It was a big task to dig down through a ship's hull full of ice with only two crow-bars. They all expected to find that she was solid throughout from water-level to keelson. Had that been the case, they could never have cleared her during the cold weather; they would have needed the thaw to help them. If they had to wait for that, they would not get away from James Bay before the autumn frosts set in again; the short summer would not be enough to thaw so big a mass of ice, sheltered as it was from the warmth by the timbers and planking of the ship. Their chances of

success depended on their finding free water inside the ship that could be pumped out—and the ship's hull sound when they had done so.

"We fell to fitting of those Bars and four broken Shovels that we had, with which we intended, and afterwards we did, to dig the Ice out of her, and to lay the Ice on a Heap upon the larboard Bow, and so sink it down to the Ground, so fast that it should be a Barricado to us when the Ice brake up, which we feared would tear us to Pieces."

The idea was an ingenious one, but not likely to succeed. The many small pieces of ice, even though they were enough to weigh down the body of the surface ice to the bottom when piled on one spot, would scatter under the constant impact of heavy drifting floes. When the weight was thus spread, the surface ice would rise again and all would be as it had been.

"The 6th was the deepest Snow we had had all this Year, which filled up all our Paths and Ways by which we were used to go to the Woods; this Snow was something moister and greater than any we had had this Year, for formerly it was as dry as Dust and as small Sand, and would drive like Dust with the Wind: The Weather continued with this Extremity till the 15th, at which Time the Spring was harder frozen than it had been all the Year before."

This was a sure sign of warmer weather. The bigger flakes of snow do not occur in the most bitter frost, when moisture is unknown. The fact that the spring was frozen harder than ever meant nothing against the evidence of

the snowflakes; the frost was continuing, but its intensity was less.

"I had often observed the Difference betwixt clear Weather and misty refracting Weather, in this manner, from a little Hill which was near adjoining our House; in the clear Weather when the Sun shone with all the Purity of Air, that I could not see a little Island which bore off us South-south-east four Leagues, but if the Weather was misty as aforesaid, then we could often see it from the lowest Place."

"This little Island I had seen the last Year when I was on Danby Island. The 13th I took the Height of it by an Instrument standing near the Sea-side, which Island I take to be 34 Minutes, the Sun being 28 Degrees high; this shews how great a Refraction here is; yet this may be noted by the Way, that I have seen the Land elevated by Reason of the reflected Air, and nevertheless the Sun hath risen perfect round."

Captain James spent some time in studying the atmospheric conditions in hard frost, and the refraction in very clear weather with a low sun. He does not attempt to explain, but merely notes his observations for the use of others. He was an accurate and careful observer.

"The 16th was the most comfortable sunshiny Day that came this Year, and I put some to clear off the Snow in the under Decks of the Ship, and to clean and dry the great Cabin, by making Fire in it, others I put to dig down through the Ice to come by our Anchor that was in Shole-water; which the 17th in the Afternoon we got up and carried aboard."

The weather was really beginning to show signs of improvement, and there was an immense amount of work to be done about the ship before she could be got ready for sea. The preparations for sea could only be done slowly, for they were still handicapped by the weather and not a man of them all was fit to do a day's work, so crippled were they by the scurvy.

"The 18th I put them to dig through the Ice near the Place where we thought our Rudder might be; they digged down and came to Water, but no Hopes of finding it."

" We had many Doubts that it might be sanded, or that the Ice might have carried it away already the last Year. Or if we could not recover it by digging before the Ice broke up and drove, there were little Hopes of it."

The rudder was vital to them. It had been carried away by the ice, and they had no means of making another. At all costs they must find and salve it. But it was an almost hopeless task to dig through the ice wherever they thought that it might lie. They might be within a foot of it and not find it. It might be buried under the sand; it might be broken up; it might have been carried out to sea on a floe. They were looking for the proverbial needle in a haystack. Chance alone could find it for them.

"The 19th we continued minding our Work aboard the Ship, and returned in the Evening to Supper ashore. This Day the Master and two others desired that they might lie aboard, which I agreed to; for, indeed, they had lain very discommodiously all the Winter, and with sick Bedfellows, as I myself had done, every one in that kind taking

their Fortunes. By lying aboard, they avoided the hearing the miserable Groanings and Lamentations of the sick Men, all Night long, enduring, poor Souls, miserable Torments. By the 24th we had laboured so hard, that we came to the Sight of a Cask, and could likewise perceive that there was some Water in the Hold. This we knew could not be thawed Water, because it froze very hard Night and Day aboard the Ship, and on the Land also. By the 23d in the Evening we came to pierce the forementioned Cask, and found it full of very good Beer, which much rejoiced us all, especially the sick Men, notwithstanding it tasted a little of the bulged Water. By this we thought that the Holes we had cut to sink the Ship were frozen, and that this Water had stood in the Ship all the Winter."

They found the cask on the morning of the twenty-third and broached it on the twenty-fourth.

Had they had time to clear the ship before sinking her, they would have had a much easier time during their wintering ashore. Half their troubles came from the fact that they were cut off from so much that they required. This beer, which was none too good, was a godsend to them. After their long subsistence on cold water even the flavour of bilge-water could not spoil it for them. Especially was it appreciated by the many who were sick. It would not cure their scurvy, but it helped them to endure it.

"The 24th we went betimes in the Morning to work, but we found that the Water was risen above the Ice where we had left Work, above two Foot, for the Wind had

blown very hard at North the night before. In the Morning the Wind came about South, and blew hard, and, although we had little Reason for it, we yet expected a lower veer of Water. I thereupon put them to work on the outside of the Ship, that we might come to the lower Hole, which we had cut in the Stern-Shoots; with much Labour, by Night, we digged down through the Ice to it, and found it unfrozen, as it had been all the Winter; and, to our great Comforts, we found that on the inside the Water was ebbed within the Hole, and that on the outside it was ebbed a Foot lower."

They had cut the holes in such a manner that they could easily plug them again and so make the ship water-tight, subject to there not being any leaks caused through her having been badly strained—which was only too likely. Hence the difference in the levels of the water inside and outside the ship, when both these levels were below the holes, was a sure sign that there were no substantial leaks in her hull.

"Whereupon I caused a Shot-board to be nailed upon it, and to be made as tight as might be, to try if the Water came in any other Way; to the other two Holes we had digged on the inside, and found them frozen. Now I did this betimes, that if we found the Ship foundered, we might resolve on some Course to save or prolong our Lives, by getting to the Main before the Ice was broken up; as for our Boat it was too little, and bulged besides that."

So far as they could see, the ship had taken no damage while she lay on the bottom during the winter. That was

to have been expected, for the ice had been frozen over far too wide an area to shift very much. She would be again exposed to great risk when the ice broke up, but that could not be avoided. She might well have suffered severely from her having lain heavily on rocks or uneven hard ground, but in that luck served them well. So far she was as sound as on the day when they sank her eight months before.

"Our Carpenter was by this Time past Hopes, and therefore little Hope had we of our Pinnace. But which was worst of all, we had not four Men able to travel through the Snow over the Ice, and in this miserable State were we at this Present."

If the carpenter died, they could neither finish the pinnace nor repair the boat. He was the only skilled man among them. It is surprising that, in so well-manned a ship, Captain James had not taken more than one carpenter. On his skill the lives of all of them might depend at any moment, so that the presence of at least two carpenter's mates in the crew would seem to be a most obvious precaution. But so it was.

The state of them all was terrible. They had a vast amount of hard manual work to do, and to do quickly; there were only four out of the original twenty-two who were fit to travel; some of the remainder might be able to do a little, but no six of them could do the work of one healthy man; and they were daily getting weaker.

"The 25th we satisfied our longing, for the Wind now coming about Northerly, the Water rose by the Ship's-side, where we had digged down a Foot and more above

the Hold, and yet did not rise within Board. This so encouraged us, that we fell lustily to digging, and to heave the Ice out of the Ship. I put the Cook, and some others, to thaw the Pumps, who, by continual pouring of hot Water into them, by the 27th in the Morning had cleared one of them, which we proving, found it delivered Water very sufficiently. Thus we fell to pumping, and having cleared two Feet Water, we left the other to a second Trial, continuing our Work thus in digging the Ice. By the 28th we had cleared our other Pump, which we also found to deliver Water very well. We found likewise that the Water did not rise any thing in the Hold."

Thus they proved the ship to be sound. It was amazing after all the heavy pounding that she had undergone before she was sunk for the winter, and speaks volumes for the strength of her construction. No steel ship could have withstood one-half of what she had received; the thin plates would have been torn like paper by the ice and rocks. The thick wood yielded to the blows, and the razor-edged ice corners only scraped the surface or occasionally tore away a few outside planks. When minor leaks developed, the wood usually swelled and closed them in a little time. For work in such waters a wooden ship is far superior to the finest steel ship that was ever built, because wood is a better material than steel to resist the constant heavy pounding.

"The 29th it rained all Day long, a sure Sign to us that Winter was broken up. The 30th we were betimes aboard at Work, which Day, and the 31st, were very cold with Snow and Hail, which pinched our sick Men more than

any Time this Year. This Evening being May Eve, we returned late from our Work to our House, and made a good Fire, and chose Ladies, and ceremoniously wore their Names in our Caps, endeavouring to revive ourselves by any Means."

The cold was less than it had been, but the sick were getting steadily worse; hence they felt it the more. It was wet and cold, too, which, though not of so low a temperature, is worse than any dry cold. It was like the cold of an English winter day with sleet and snow compared with the bright hard cold of the Swiss mountains.

On every possible occasion throughout the winter they had made pitiful attempts to "revive" themselves. They had celebrated Christmas as well as they could, and Easter, and now May Day. Anything that could remind them of the home that some of them would never see again; anything that helped, even for the moment, to break the deadly monotony and the bitter labour, was a joy and a relief—almost a necessity—to them.

"At our coming from England we were stored with all sorts of Sea-provisions; as Beef, Pork, etc. But now, as we had little Hopes of recruiting, our Cook ordered it in this Manner: The Beef which was to serve on Sunday Night to Supper, he boiled on Saturday Night in a Kettle full of Water, with a Quart of Oatmeal, about an Hour; then taking the Beef out, he boiled the rest to half the Quantity; and this we called Pottage, which we eat with Bread as hot as we could, and after this we had our Ordinary of Fish. Sunday, for Dinner we had Pork and Pease, and at Night the former boiled Beef made more Pottage. In this

Manner our Tuesday's Beef was boiled on the Monday Nights, and the Thursday's upon Wednesdays; and thus all the Week, except Friday Night, we had something warm in our Bellies every Supper; and surely this did us a great deal of Good : But soon after Christmas many of us fell sick, and had sore Mouths, and could neither eat Beef, Pork, Fish, nor Pottage. Their diet was only this; they would pound Bread in a Mortar to Meal, then fry it in a Frying-pan with a little Oil, and so eat it. Some would boil Pease to a soft Paste, and feed, as well as they could, upon that; for the most Part of the Winter Water was our Drink. In the whole Winter we took not above a dozen Foxes, many of which would be dead in the Traps two or three Days oftentimes; and then, when the Blood was settled, they would be unwholesome; but if we took one alive, and he had not been long in the Trap, him we boiled and made Broth for the weakest sick Men; the Flesh of them being soft boiled they eat also. Some white Partridges we killed, but not worth mentioning."

They had been living on salt food for months—the one thing above all others to induce scurvy. Since they had left England full twelve months earlier they had had no fresh food of any kind. Salt beef, salt pork, salt fish were their portion, day in day out, month in month out. The oatmeal and pease were vegetable, but dried. All the virtue of their freshness had gone out of them, and with it the protection that they might have afforded against the scurvy. Now, at a time when they wanted all their strength, they were at their lowest ebb. A dozen foxes and a few ptarmigan were all that they had had in the way of fresh

food—to be divided among twenty men. The wonder is not that they were sick, but that they were alive.

"We had three Sorts of sick Men; those that could not move, nor turn themselves in their Beds, who must be tended like Infants; others were, as it were, crippled with Aches; and others that were something better; most had sore Mouths. You may now ask me, How these infirm Men could work? I will tell you: Our Surgeon, who was a diligent and sweet conditioned Man as ever I saw, would be up betimes in the Morning, and whilst he picked their Teeth, and cut away the Pieces of Flesh from their Gums, they would bathe their Thighs, Knees, and Legs. The Manner of it was thus; there was no Tree, Bud, or Herb but we made Trial of it; and this being first boiled in a Kettle, and then put in a small Tub and Basons, they put it under them, and covered them with Cloths upon it. This so mollified the grieved Parts, that though, when they rose out of their Beds, they would be so crippled that they could scarce stand, yet after this was done half an Hour they would be able to go, (and go they must) to wade through the Snow to the Ship, and about other Business; by Night they would be as bad again, and then they must be bathed, anointed, and their Mouths dressed again before they went to Bed; and in this Diet, and in this Manner we went through our Miseries."

Throughout the winter there had been neither buds nor herbs to be found; the former were not developed, and the latter were under deep snow. They were in a timber country, but that was not enough to give them what they needed. Had they been able to find scurvy-grass or sorrel

they would all have been well in a week, but the snow prevented them. In their state any edible herb would have been a godsend.

"I was always afraid that we should be weakest in the Spring, and therefore I reserved a Tun of Alicant Wine unto this Time: Of this, by putting seven Parts of Water to one of Wine, we made some weak Beverage, which, by Reason that the Wine had been froze and lost its Virtue, was little better than Water. The sicker Sort had a Pint of Alicant a Day by itself, and of such poor Aqua Vitæ too as we had, they had a Dram allowed them next their Hearts every Morning: And thus we made the best Use of what we had, according to the Seasons."

Captain James had shown great wisdom and foresight in his arrangements, but he could not anticipate when he left England what they would have to overcome. He had had much experience of the North, but it did not run to wintering in Hudson Bay. He had done all that he could, but that was not enough. Luckily they were nearing the end of their misfortunes, for the spring was coming fast and the frost was beginning to break. It was still a matter of chance whether they would not all die before they got relief, for they were getting worse as fast as the weather was improving. It was a neck-and-neck race between death and salvation, with the chances in favour of death.

"May 1632, the 1st, we went aboard by-times, to heave out the Ice; the 2d, it did snow and blow, and was so cold we were forced to keep house all Day. This unexpected Cold, at this time of the Year, did so vex our sick Men that they grew worse and worse; we could not now

take them out of their Beds, but they would swoon, and we had much ado to keep Life in them."

In spite of temporary checks the weather improved daily. The thaw had set in and the earth was beginning to show in wet patches through the snow. Their chance of escape was coming—if they were strong enough to take advantage of it. They did their best, but it was a pitifully poor best.

"On the 3d, those that were able, went on board betimes, to heave up the Ice; the Snow was now melted in many Places upon the Land, and stood in Plashes; and now there came some Cranes and Geese to it. The 4th, while the rest wrought on board, I and the Surgeon went with a Couple of Pieces, to see if we could kill any of those Fowls for our sick Men; but never did I see such wild Fowl; they would not endure to see any thing move; wherefore we returned in two Hours, not being able to endure any longer stalking through the Snow and the wet Plashes. I verily thought my Feet and Legs would have fallen off, they so tormented me with aching."

Wild geese are proverbially wary, but they were unlucky in not getting a shot at the cranes. Their primitive fowling-pieces were against success, and they were not in health to undertake a long and difficult stalk through the wet, melting snow. For such work it was worse than the hard frost. They came back wet, which they had not done for months. For that they might be glad.

"The 6th, John Wardon, the Master of my Ship's Chief Mate, died, whom we buried in the Evening, in the

most Christian-like Manner, on the Top of a bare Hill of Land, which we called Brandon-hill."

This was the third death since they had sailed from home.

"The Weather continued very cold, it freezing so hard in the Night that it would bear a Man. By the 9th we were come to, and got up, our five Barrels of Beef and Pork, and had found four Butts of Beer and one of Cyder, which God had preserved for us; it had lain under Water all the Winter, yet we could not perceive it was any worse. God make us ever thankful for the great and seasonable Comfort it gave us."

As they cleared the hold they reached the stores that had been left on board. They were useful; but an hundredweight of fresh vegetables would have been of more worth to them than a shipload of salt provisions. They were dying for want of fresh food—and they were given a stone. The beer and cider were better than nothing; they were at least tangible proof that the ship was being cleared and got into condition for refitting. It showed that they were making progress—and they badly needed encouragement, though their endurance was amazing.

"The 10th it snowed, and blew so cold that we could not stir out of the House, yet nevertheless, by Day, the Snow vanished apace on the Land. The 11th we were on board betimes, to heave out Ice. By the 12th at Night we had cleaned out all the Ice out of the Hold, and found likewise our Store Shoes, which had lain soaked in the Water all the Winter, but we dried them by the Fire, and fitted ourselves with them. We struck again our Cables

into the Hold; there stood a Butt of Wine also, which had been all the Winter on the Upper-deck, and continued as yet all frozen. We fitted the Ship also, making her ready to sink again when the Ice broke up. We could find no Defect in her, and therefore we hoped that she was staunch; the Carpenter nevertheless argued to the contrary, alledging that now she lay on the Ground, in her Deck the Ice had filled her Defects, and the Ice was the thing that kept out the Water; but when she should come to labour in the Sea, she would certainly open, and indeed we could now see quite through her Seams betwixt Wind and Water; but that which troubled us most was, the Loss of her Rudder, and she now lay in the very Strength of the Tide, which whenever the Ice drove might tear her to Pieces; but we still hoped for the best."

The ship was lying in a sort of dock, but she was their great anxiety. The caulking had worked out of many of her seams and would have to be renewed; she had no rudder; she had been submerged for six months; she was probably badly strained; much of her rigging was in a bad way and needed to be completely refitted. But she was all they had except the pinnace, which was not yet half finished. In view of the fact that they could pump the ship out, the leaks were apparently not very serious, at least below the waterline. Above the waterline she could easily be recaulked.

They kept the ship ready for sinking again for the same reasons that they had originally sunk her. It would be better for her to be damaged where she was than for her to be carried out to sea by the ice.

"The 13th, being the Sabbath-day, we solemnized it, giving God Thanks for those Hopes and Comforts we daily had. The Weather in the Day-time was pretty warm, but it froze by Night, yet now we could see some Land. The 14th we began a new sort of Work: The Boatswain, and a convenient Number, brought on Shore the rest of our Rigging, which was much spoiled by pecking it out of the Ice, and this they now fell to fitting. I set the Cooper to fit our Cask, although, poor man, he was very infirm; my Intent being to pass some Cables under the Ship, and so to buoy her up with those Casks, if we could not get her off otherwise; some others I ordered to go and see if they could kill some wild Fowl for our sick Men, who now grew worse and worse; but this is to be remembered, that we had no Shot but what we made of the Aprons of our Guns, and some old Peweter that we had; for the Carpenter's Sheet-Lead we durst not use."

It is little to be wondered at that they did not kill any wild geese. The guns were heavy, clumsy weapons, made for fighting; the irregular pieces of chopped metal that had to serve for bullets would fly in every direction except that in which they were aimed. The geese had little to fear

CHAPTER IX

Now they suffered their greatest loss.

"The 15th I manured a little Patch of Ground that was bare of Snow, and sowed it with Pease, hoping to have some shortly to eat; for as yet we could see no green Thing to comfort us. The 18th our Carpenter William Cole died; a Man beloved of us all, as much for his innate Goodness, as for the present Necessity we had of a Man of his Quality: He had endured a long Sickness with Patience, and made a very godly End. In the Evening we buried him by Mr Wardon, accompanied with as many as could go, for three more of our principal Men lay then expecting a good Hour."

The carpenter was a great man. He had suffered intensely from the scurvy for months, and had kept steadily at his work when barely able to stand. He had been invaluable. He had planned the pinnace and had brought her to a state when the parts were ready to be bolted together. Without him, this could never have been done. All the planning and shaping of the timbers had been carried out by him alone, or under his immediate supervision when he himself was too ill to work. He was most unlucky in dying just when escape became more than a vague possibility, even though he had expected his death for months. He

faced his death as he had faced his work—unshaken. He was only one of scores of thousands of English adventurers who, in all times and in all parts of the world, have worthily upheld the traditions of their race, and have between them made the Empire.

"And now were we in the most miserable State that we were in all the Voyage. Before this extreme Weakness, he had brought the Pinnace to that Pass, that she was ready to be bolted, etc. and to be joined to receive the Planks; so that we were not so discouraged by his Death, but that we hoped, ourselves, to finish her, if the Ship proved unserviceable. This Pinnace was twenty-seven Feet by the Keel; she had seventeen Ground-Timbers, thirty-four principal Staddles, and eight short Staddles: He had contrived her with a round Stern, to save Labour, and indeed she was a well-proportioned Vessel; her Burden was twelve or fourteen Tons."

With luck and good seamanship, she was big enough to take them home across the Atlantic. Boats no bigger than she have made as long and dangerous voyages both before and since. Hundreds of years earlier the Norse had crossed the Atlantic in open boats and had discovered America; Captain Bligh, when turned adrift by the mutineers of H.M.S. *Bounty*, made a no less wonderful voyage in a ship's boat half-way across the Pacific; Sir Ernest Shackleton's voyage in an open boat from Elephant Island to South Georgia in constant westerly gales and heavy seas was an equally fine piece of work. And there are others too numerous to mention.

"In the Evening the Master of our Ship, after the

Burial, returned aboard, and, looking about him, discovered some Part of our Gunner under the Gun-Room Ports. This Man we had committed to the Sea at a good Distance from the Ship, and in deep Water, near six Months before. The 19th, in the Morning, I sent Men to dig him out. He was fast in the Ice, his Head downwards, and his Heel upwards, for he had but one Leg; and the Plaister was yet at the Wound. In the Afternoon they had digged him clear out, and he was as free from Noisomness, as when we first committed him to the Sea. This Alteration had the Ice, and Water, and Time only wrought on him, that his Flesh would slip up and down, upon his Bones, like a Glove on a Man's Hand. In the Evening we buried him by the others. This Day one George Ugganes, who could handle a Tool best of us all, had pretty well repaired our Boat, and so ended this mournful Week."

In a fortnight they had lost two of their number and, by an extraordinary chance, had found and buried anew their gunner, who had been six months dead. His body had come to tap again at the door of his old quarters. It was a gruesome find, particularly at that moment.

"The Snow was by this time pretty well wasted in the Wood; and we having a high Tree on the highest Place of the Island, which was called our Watch-Tree, from the Top of it might see into the Sea, but found no Appearance of breaking up yet."

"The 20th, being Whitsunday, we sadly solemnized it, and had some Taste of the Wild-fowl, but not worth the writing. The 21st was the warmest sunshiny Day that

came this Year. I sent two a-fowling; and myself, the Master, Chirurgeon, and one more, with our Pieces and Dogs. We went into the Woods to see what we could find; we wandered from the House eight Miles; and searched with all Diligence, but returned comfortless; not an Herb or Leaf eatable could we find. Our Fowlers had as bad Success. In the Woods we found the Snow partly melted away, so that it was passable."

In the Arctic, with only a few short weeks in which to grow from bud to seed, vegetation springs up almost in a night, once the frosts have broken. Thus at any time they might find the green food that would be their salvation. Could they find that in any quantity, half their troubles would be over. Anything green and edible would do, but it must be found at once. Soon it would be too late. They were in so low a state that the bare chance was worth a journey of many miles. Shooting was a secondary matter with the captain's party; their chief object was to search for green food.

He describes the melting of the snow with some enjoyment; it was a new thing for him to find anything to enjoy.

"The Snow does not melt away here with the Sun or Rain, and so make Land-Floods, as in England, but is exhaled by the Sun, and sucked full of Holes like the Honey-combs; so that the Sand whereon it lies will not be wetted. The like Observations we also made, that let it rain ever so much you shall see no Land-Floods after it."

The low flat land was mossy and porous. The rain got into the sea too easily and quickly for floods to form. The

company were on a small island which would not be subject to floods on account of its small area.

"The 22d we went aboard the Ship, and found she had made so much Water that it was risen above the Ballast, which made us doubt again of her Soundness. We fell to pumping, and pumped her quite dry. And now by Day sometimes we have such hot Glooms that we cannot endure the Sun, and yet in the Night it freezes very hard. This Unnaturalness of the Season tormented our Men that they grew worse and worse daily."

Before the winter came on the ship could only be kept afloat by constant pumping. After having spent six months under water it was not to be expected that she would have improved. Though some of her leaks might have been stopped by the swelling of her timbers, others would form through the caulking of her seams having worked out.

The weather showed such extremes of temperature that it tried the crew severely. The high, hot sun caused the temperature to rise rapidly during the day. At sunset, however, when the heat was withdrawn, the air cooled and the frost reasserted itself as rapidly, so that it froze hard before morning.

"The 23d our Boatswain, a careful Man, having been long sick, which he had heartily resisted, was taken with such a Pain in one of his Thighs, that we thought he would have died presently. He kept his Bed in great Extremity. And it was a Maxim among us, that if any one kept his Bed he could rise no more. This made every Man to strive to keep up for Life."

It was all part of the scurvy. But their trials were

nearly over. Things were really getting better—only just in time.

"The 24th was very warm Sunshine, and the Ice consumed by the Shore-side, and cracked all over the Bay with dreadful Noise. About three in the Afternoon we could perceive the Ice with the Ebb to drive by the Ship, whereupon I sent two with all Speed to the Master, with Order to beat out the Hole and to sink the Ship, as likewise to look for the Rudder betwixt the Ice. This he presently performed; and a happy Fellow, one David Hammon, pecking betwixt the Ice, struck upon it, and it came up with his Launce, who crying that he had found it, the rest came and got it upon the Ice, and so into the Ship. In the mean time the little Drift which the Ice had begun to rise and mount into high Heaps against the shole Shores and Rocks, and likewise against the Heap of Ice which we had put for a Barricade for our Ship, but with little Harm to us; yet we were forced to cut away twenty Fathom of Cable which was frozen in the Ice. After an Hour the Ice settled again, not having any Vent outwards. This was a joyful Day to us all, and we gave God thanks for the hopes we had of it."

At last the ice had broken with promise of clear water to follow. When it began to drive, the ship was again in danger. They followed their previous plan of scuttling her.

The recovery of the rudder was an extraordinary stroke of good fortune. It might have been anywhere for twenty miles around. A rudder is not an easy thing to make, even for a small ship like this one. It has to be of great strength and very firmly secured to the stern-post of the ship, and

yet it must be free enough to work easily. The stresses put upon it are enormous, not only when it is struck by floating ice or by breakers when a heavy sea is running, but also when it is put over to control the ship in a gale of wind.

They would have had the greatest difficulty in building another, particularly now that the carpenter was dead. He might have contrived something though they lacked ironwork, but without his skilled assistance they were helpless.

The ship took no harm from the drifting ice, and altogether everything went in favour of the party. From that time onwards their luck seemed to have changed for the better, though they were not yet out of their difficulties by any means. They had much bitter work and many reverses to endure before they escaped from their island, but they had finished with the endless, deadly cold and the heavy monotonous labour that, from month's end to month's end, never seemed to bring them nearer to relief. Everything that they did now was a definite step towards their release from the terrible island. Such work they could perform with joy, though most of them could hardly stand upon their feet.

"The 25th was a fine warm Day, and with the Ebb the Ice drove against the Ship and struck her soundly. The 26th I took the Chirurgeon with me, and went again to the Wood, and to that Bay where last Year we had lost our Man John Barton, but we could find no Sign of him. The 28th it was pretty clear betwixt the Ship and the Shore, and I hoped the Ice would no more oppress us; wherefore I caused the lower Holes to be firmly stopped,

the Water then remaining three Feet above the Ballast. The 29th being Prince Charles's Birth-day, we kept Holiday, and displayed his Majesty's Colours both on Land and aboard, and named our Habitation Charles-Town, by Contraction Charlton, and the Island Charlton Island."

Thus was the island named, and it has kept its name to this day.

The ice was rapidly clearing away from the foreshore, and the boat was becoming useful again. It was long since she had been in the water.

"The 30th we launched our Boat, and had Intercourse sometimes between the Ship and the Shore by Boat, which was new to us. The last Day of this Month we found some Vetches to appear out of the Ground, which I made our Men pick up and boil for our Sick. This Day we made an end of fitting all our Rigging and Sails, and it being a very hot Day we dried our Fish in the Sun, and aired all our other Provisions. There was not a Man of us at present able to eat of our salt Provisions but myself and the Master. It may be remembered that all this Winter we had not been troubled with any Rheums nor Phlegmatic Diseases. All this Month the Wind was variable, but for the most part Northerly."

The discovery of the vetches was the most important thing that had happened to them since they had been snowed in for the winter. Even the finding of the rudder was secondary to it. The green food proved to be the salvation of their sick. Even the small quantity that they found then was invaluable, for it started them on the road to health. The only sickness that had afflicted them

throughout the winter had been scurvy. But for that, they had all been in health, but that was worse than anything. Now they had a cure for it.

"June 1632. The first four Days snowed and hailed, and blew very hard, and it was so cold that the Ponds of Water froze over, and the Water in our Cans was frozen even in the very House. Our Cloaths also that had been washed and hung out to dry did not thaw. All Day the 5th it continued blowing very hard on the broad Side of the Ship, which made her swag and wallow in her Dock, notwithstanding she was sunk, which shook her very much. The Ice withal drove against her, and gave her many fearful Blows."

This spell of bad weather did not trouble them, for they knew that it would not last. It delayed their preparations for a few days, but that was all. They had taken advantage of the milder weather to wash their clothes—a thing impossible during the winter, for there were no means of drying them. There was much to be done besides that before they would be ready for sea, and some part of it could be done under cover during the gale.

"I resolved to endeavour to hang the Rudder, and when God sent us Water, notwithstanding the abundance of Ice that was yet about us, to heave her further off. In the Afternoon we under-run our small Cable to our Anchor, which lay a-stern in deep Water, and so with some difficulty got up our Anchor. This Cable had lain slack under Foot, and under the Ice all Winter, and we could never have a clear Slatch from Ice to have it up before now. We found it not a Jot the worse. I put some to make Coal-

rakes, that they might go into the Water and rake a Hole in the Sand to let down our Rudder. The 6th we went about to hang it; and our young lustiest Men took it by Turns to go into the Water and to rake away the Sand, but they were not able to endure the Cold half a Quarter of an Hour, it was so mortifying; and use what Comforts we could, it would make them swoon and die away. We brought it to the Stern-Post, but then we were forced to give it over, being able to work at it no longer. Then we plugged the upper Holes aboard, and fell to pumping the Water out of her again."

The small anchor had been laid out when they beached the ship for the purpose of hauling her off into deep water again. They only needed to sight it in case it was foul or damaged, for they would probably need something to seaward to haul off to. The cable would need to be underrun. It might be buried in the sand or foul of some obstruction. It was not in their way. It was slack and could easily be led clear while they hung the rudder; or by hauling it taut and bringing it in through a quarter-lead they could raise it above and to the side of the rudder-head and stern-post.

The ship had bedded herself more than four feet deep in the sand, so the heel of the rudder could not be sunk to its bearings. The sand had to be scraped away under water to clear the foot of the stern-post, and the work was killing to the men, who were waist-deep in the icy sea. It was almost impossible to dig a hole over four feet deep under water merely by scraping with rakes, for the sea washed the sand into it and filled it up again as fast as it was

scraped out. The only way was to float the ship and thus to lift her out of her bed in the sand.

"The 7th we wrought about our Rudder, but were again forced to give over, and so put our Cables over board with Messengers unto them, the Anchor lying to that Pass that we might keep her right in the Dock when we had brought her light. By the 8th at Night we had pumped all the Water out of her, so that at High Water she would float in her Dock, tho' she were still docked in the Sand almost four Feet. This made us consider what was to be done. I resolved to heave out all the Ballast; for the Bottom of her being so soaked all the Winter, I hoped was so heavy that it would bear her. If we could not get her off that Way, I then thought to cut her down to the lower Deck, and take out her Masts, and so with our Casks to buoy her off. The 9th betimes in the Morning we fell to work, we hoisted out our Beer and Cyder, and made a Raft of it, fastening it to our Shore-Anchor. The Beer and Cyder sunk presently to the Ground, which was nothing strange to us, for any Wood or Pipe-Staves that had laid under the Ice all the Winter would also sink down as soon as ever it was hove over board."

The sand was banked up some four feet round the ship, but by lightening her she would come up considerably in the water. On a high tide they hoped that that would clear her bottom, even though the bank round her sides remained. They might then get a chance to ship the rudder, which they must do before they hauled her off into deep water. When he removed her ballast, Captain James relied on the weight of her soaked bottom timbers being enough

to keep her upright. Without her ballast she would be liable to capsize, but the extra weight of the water-logged wood might give her enough stability to prevent that from happening.

If that was not enough, he would have to take the risk of cutting her down to her lower deck to lighten her and at the same time to give her the necessary stability by lowering her centre of gravity. This deck was probably what was afterwards called the upper deck—the uppermost deck that ran flush the full length of the ship. It meant the removal of her forecastle and the various short decks—half-deck, quarter-deck, poop, etc.—that were in those days built up aft to a considerable height above the upper deck. Thus he would still have a hull complete, but stripped of all upper-works. She would be a flush-decked ship, quite capable of going to sea, but practically without quarters for her officers and crew. In appearance she would be more akin to modern vessels than to the ships of her time, for nearly all the top-hamper was done away with by degrees during the next two hundred years. Captain James can hardly have intended to cut away more than this. He was an experienced seaman, and must have known that, did he cut below the upper deck, he would be opening the closed interior of the ship to the sea, and that this would seriously affect her buoyancy. Had the carpenter been alive he might have done so, relying on the carpenter's skill to rebuild her; but the carpenter was dead. Without him, it would be almost impossible to rebuild any part of the main hull, though they might rig shelters forward and aft for the ship's company during their voyage home.

After he had cut the ship down, he proposed to pass hawsers under her bottom to which they would secure empty casks at low water. As the tide rose, the floating casks would rise with it, tautening the hawsers and thus helping to lift the ship. The whole thing would be a piece of skilful salvage work. The method is still used in salvage; wrecks are to-day often lifted by vast pontoons secured together by great cables that are passed beneath their bottoms. The apparatus is now huge and complicated; the old idea is unchanged in any single detail.

"This Day we heaved out ten Ton of Ballast; and here I am to remember God's Goodness towards us, in sending those forementioned green Vetches; for now our feeble sick Men, that could not for their Lives stir these two or three months, could endure the Air, and walk about the House. Our other sick Men gathered Strength also: And it was wonderful to see how soon they were recovered. We use them in this Manner twice a Day; we went to gather the Herb or Leaf of those Vetches as they first appeared out of the Ground, and then we washed and boiled them, and so with Oil and Vinegar that had been frozen we eat them. It was an excellent Sustenance and refreshing; the most part of us eat nothing else. We likewise bruised them, and took the Juice of them and mixed it with our Drink: We also eat them raw with our Bread."

They were all improving every day; the vetches had saved them. The healthier they were the quicker they could get on with the work and clear for England. That alone put life into them.

"The 11th was very warm Weather, and we hung our

Rudder. The Tides now very much deceived us, for a Northerly Wind would very little raise the Water. This made us doubt of getting off our Ship. The 13th I resolved to know the Latitude of this Place; so having examined the instruments and practised about it this Fortnight, I found it to be 52 Degrees 3 Minutes. The 14th we had heaved out all the Ballast, and carried all our Yards and every thing else on Shore, so that we now had the Ship as light as possible it could be."

"The 15th we did little but exercise ourselves. By this Time our Men that were most feeble grew strong and run about, the Flesh of their Gums being settled again, and their Teeth fastened so that they eat Beef with their Vetches. This Day I went to our Watch-Tree, but the Sea, for any thing I could perceive, was still firm frozen, and the Bay full of Ice, having no Way to vent it."

They were waiting for an extra high tide so that they could haul the ship over the bank of sand into deep water. At the moment there was little for them to do. All the yards and gear had been landed; they had overhauled the standing rigging and had rove such new running rigging as was possible with the yards and sails ashore; such sails as were not being used for covering the houses had been repaired and made ready for bending. As soon as the ship was afloat, they could cross the yards and bend the sails at once. They could do little to the courses until they had dismantled their houses and were living on board. But they must get their ship afloat before they could live in her.

"The 16th it was wondrous hot, with some Thunder and Lightning, so that our Men went into the Ponds

ashore to swim and cool themselves, yet the Water was very cool still. Here had lately appeared divers sorts of Flies, as Butter-flies, Butcher-flies, horse-flies, and such an infinite Number of blood-thirsty Musketoes, that we were more tormented with them than ever we were with the hot weather. Those I think lie dead in the old rotten Wood all the Winter, and in Summer they revive again. Here are likewise infinite numbers of Ants and Frogs in the Ponds upon the Land, but we durst not eat of them: They looked speckled like Toads. By this Time there were neither Bears, Foxes, nor Fowl to be seen."

In spite of their improved conditions they were still much in need of a change of food, for they seriously considered eating some of the frogs. They would not have done that unless they had been forced to it. But they soon had work to do.

"The 17th the Wind came Northerly, and we, expecting a high Tide, in the Morning betimes put out our small Cable astern out at the Gun-Room Port, but the Morning-Tide we had not Water by a Foot. In the Evening I had laid Marks by Stones, etc. and thought that the Water flowed apace: Making Signs therefore for the Boat to come ashore, I took all that were able to do any thing with me aboard; and at High Water, although she wanted something to rise clear out of the Dock, yet we heaved with such Good-will, that we heaved her through the Sand into a Foot and a half deeper Water, and further we durst not bring her: for the Ice was all thick about us. After we had moved her we all went to Prayers, and gave God Thanks that he had given us our Ship again."

They had to take advantage of every slightest chance to get her off. They could not depend entirely on the tide. The water apparently banked up under a north wind, but at times it had not done so. And they might not get a north wind when they wanted it. A foot and a half deeper water made a lot of difference to them; practically it meant that they would get the ship afloat without having to cut her down.

"The 18th we were up betimes, the Cooper and some with him to bring fresh Water, myself with others to gather Stones at low Water, which we piling up at low Water, the Cockswain and his Gang fetched them aboard, where the Master with the rest stowed them to the Offing, by which means we could the better come and stop the two upper Holes firmly: After which we fitted other convenient Places to make others to sink her, if Occasion were."

Some of the scuttling holes had been cut high up in the hold, for the carpenter had been standing on the cargo when he had cut them. In the now empty hold, they were far above the reach of anyone standing on the bilge. The stones were apparently stowed in the "offing"—or wings —to make a platform on which men could stand when plugging the holes; they would afterwards be useful as ballast.

"The 19th we were all up betimes to work as afore specified. These two Days our Ship did not float, and it was a very happy Hour which we got her off, for we never had such a high Tide all the Time we were here. In the Evening we went up to our Watch-Tree; and this was the

first Time I could see open Water any way except that little by the Shore-side where we were. This put us in some Comfort that the Sea would shortly break up, which we knew must be so to the Northward, seeing that Way we were certain there were about two hundred Leagues of Sea. The 20th we laboured as formerly, the Wind at North-north-west. The Tide rose so high that our Ship floated, and we drew her off into a Foot and a half deeper Water. Thus we did it by little and little, for the Ice was still wonderfully thick round about us."

Now that the ship was afloat, they had no more need of northerly winds and high tides. They wanted the opposite of what they had depended upon before. Southerly winds were now their chief requirement. The north winds brought in the ice and heavy sea which were now their chief dangers. The south winds cleared the ice out of the channels and broke up the floes in Hudson Bay; they were also fair winds for Hudson Strait.

"The 22nd there drove much Ice about us and within us, and brought home our Stern-Anchor at high Water. Notwithstanding all the Ice we heaved our Ship further off, that so she might lie afloat at low Water. The next low Water we sounded all about the Ship, and found it very sound Ground. We discovered Stones three Feet high above the Ground, and two of them within a Ship's-breadth of the Ship, whereby did more manifestly appear God's Mercy to us; for if when we found her on Shore she had struck one Blow against those Stones, it had bulged her. Many such Dangers were there in this Bay, which we now first perceived. In the Evening we towed

off the Ship into the Place where she rode the last Year, and there moored her, steering the Ship Night and Day, Flood and Ebb, among the dispersed Ice that came athwart us."

Now the ship needed care. She lay at a single anchor in a strong tide that brought with it great lumps of ice. Day and night a man was at the helm and another on the look out to sheer her to port or starboard on her anchor to avoid the drifting floes. Any one of them might damage her badly or make her part her cable under its extra weight when foul of the ship.

They had been extraordinarily lucky in saving her. Had she struck one of the many rocks in the neighbourhood, or, which was even more likely, had she been set over by the tide and drifting ice on to one of them, she must have been lost. Then they would have had to depend on their half-built pinnace. Without the carpenter it is more than likely that they would never have made her seaworthy—certainly not in time to take advantage of the summer for getting home.

CHAPTER X

Now they had the pleasant task of getting all their gear on board again. It was cold work, for they had to wade through the shallows to the boat, but it was done with zest.

"The 23d we laboured in fetching the Provisions on board, which to do we were forced to wade to carry it to the Boat a full Bow-shot, and all by Reason the Wind was Southerly. This Morning I took an Observation of the Moon's coming to the South, by a Meridian Line of a hundred and twenty Yards long, which I had rectified many Weeks beforehand. The 24th I took another Observation of the Moon's coming to the Meridian."

Then came a most important piece of work. No less than the formal annexation of all that vast region—how vast they never guessed—in the name of His Majesty, King Charles I.

"I had formerly cut down a very high Tree and made a Cross of it: To it now I fastened uppermost the King and Queen's Pictures drawn to the Life, and doubly wrapped in Lead, and so close that no Weather could hurt them. Betwixt both these I affixed his Majesty's Royal Title, viz. Charles the first, King of England, Scotland, France and Ireland, as also of Newfoundland, and of these Terri-

tories, and to the Westward as far as Nova Albion, and to the Northward to the Latitude of 80 Degrees, etc. On the Outside of the Lead I fastened a Shilling and a Sixpence of his Majesty's Coin; under that we fastened the King's Arms fairly cut in Lead, and under that the Arms of the City of Bristol: And this being Midsummer-day, we raised it on the Top of the Bar-hill, where we had buried our dead Fellows, by the Ceremony taking Possession of these Territories for His Majesty's Use."

That old Carolean annexation plate, with the Royal portraits wrapped in lead, may now be lying on the top of Bar Hill beside the skeletons of three men, one of whom lacks a leg, buried deep in the soil of Charlton Island.

In similar manner were many great areas annexed to the English Crown.

"The Wind continuing Southerly, and blowing hard, put all the Ice upon us, so that the Ship now rode among it in such apparent Danger, that I thought verily we should have lost her."

"We laboured Flood and Ebb with Poles and Oars to heave away and part the Ice, but it was God that protected and preserved us; for it was past any Man's Understanding how the Ship could endure it, or we by our Labour save her. In the Night the Wind shifted to the Westward, and blew the Ice from us, which gave us some Rest."

They had not had to fend off the ice with poles for a long time. Their worst time had been when coming through Hudson Strait on their outward voyage. Since then they had endured privations and had overcome dangers and difficulties such as fell to the lot of few even

in those days, when every man that put to sea on a voyage of discovery carried his life in his hands. Now they began the work afresh, poling the ice from the ship.

"The 25th in the Morning the Boatswain with a convenient Crew began to rig the Ship, the rest fetching our Provision on board. About ten o'Clock when it was something dark, I took a Launce in my Hand, and one with me with a Musket, and went to our Watch-Tree to make a Fire on the most eminent Place of the Island, to see if it would be answered. Such Fires I have formerly made to have Knowledge if there were any Savages on the Main or the Islands about us. Had there been any, my Purpose was to have gone to them to get Intelligence of Christians, or some Ocean Seas thereabouts."

Often had Captain James tried to discover other human beings in that land of desolation; never had he succeeded. He had no hope of meeting any English, but there was the possibility of finding Indians or Esquimaux from whom he might get assistance or information. He was badly in need of both.

On this occasion he nearly lost his life.

"When I was come to the Tree I laid down my Launce, and so did my Consort his Musket, whilst I climbed up to the Top of the Tree. I ordered him to put Fire to some low Tree thereabouts. He unadvisedly put Fire to some Trees that were to Windward, so that they and all the rest too, by Reason it had been very hot Weather, being dry, took Fire like Flax and Hemp; and the Wind blowing towards me, I made Haste down the Tree; but before I was half-way down the Fire took on the Bottom of it, and

blazed so fiercely upward that I was forced to leap off the Tree and down a steep Hill, and in short with much ado escaped Burning. The Moss on the Ground was as dry as Flax, and it run most strangely, like a Train along the Earth. The Musket and Launce were both burnt. My Consort at last came to me, and was joyful to see me, for he thought verily I had been burnt: And thus we went homeward together, leaving the Fire encreasing and burning most furiously."

Once started, nothing could stop it. It ran through the moss as though it had been stubble, and spread with amazing rapidity. They both escaped with only the loss of their weapons, and they were very lucky to do so. Especially was Captain James fortunate. He was at the top of the tallest tree in the neighbourhood when the fire got out of control, and before he was half-way down it had caught the foot and lower branches of the tree. It flared up like a torch, and had not Captain James started to come down when he did, he must have been lost. As it was, he was just able to reach a place whence he could jump safely before the fire reached him up the tree. The whole thing was a matter of seconds.

"I slept but little all Night after, and at Break of Day ordered all our Powder and Beef to be carried aboard this Day. I went to the Hills to look to the Fire, where I saw it still burn both to Westward and Northward, leaving one upon the Hills to watch it. I came home immediately, and made them take down our new Suit of Sails, and carry them to the Sea-side, ready to be cast in if Occasion were, and to make haste to take down our Houses."

The whole forest was burning. Everything was as dry as tinder, and a shift of wind might cause it to sweep the camp. As it proved, his precautions were well justified.

"About Noon the Wind shifted Northward, and our Centinel came running home, bringing us Word that the Fire followed him at his Heels, like a Train of Powder. There was no Occasion to bid us pull down, and carry all to the Sea-side. The Fire came towards us with a most terrible rattling Noise, bearing a full Mile in Breadth; and by that Time we had uncovered our Houses, and going to carry away our last things, the Fire was come to our Town, and seized it, and, in a Trice, burnt it down to the Ground. We lost nothing of any Value, for we had brought all into a Place of Security. Our Dogs, in this Condition, would sit down on their Tails, and Howl, and then run into the Sea, and there stay. The Wind shifted easterly, and the Fire ranged to the Westward, seeking what it might devour. This Night we lay together aboard the Ship, and gave God Thanks, who had been thus merciful unto us."

Had the fire started a few days earlier, and before they had got most of their gear on board, they would have lost their sails and most of their provisions. As it was, it was only Captain James's foresight that saved them from losing the sails that were covering the houses. Very wisely, he had ordered them to be removed as soon as he found how rapidly the fire was spreading. When the wind shifted, it was on them in a moment. The watcher ran to warn them, but the fire travelled as quickly as he did. Had the ship been still on the beach they might have lost her, but

it is not certain how far she was from the nearest trees—probably, on that shallow shore, she was too far away to be in danger. But it was one of the narrowest escapes that they had.

"The 27th, 28th, and 29th, we wrought hard in fetching our things aboard, as likewise our Water, which we towed off with the Ebb, and sent it to the Ship, with the Flood; we were forced to go about the Eastern point for Drift-wood, for the Tools were all so spent, that we could cut none. Therefore about three Days before I had caused our Pinnace to be sawed to pieces, and with that we stowed our Cask, intending to burn it at Low-water; and such other times as we could not work in carrying things aboard, I employed in fetching Stones; and we built three Tombs over our three dead Companions, filling them with Sand, in a decent and handsome Manner. The least Tomb had two Tons of Stones about it."

They had practically no heavy cutting tools left. Their axes and adzes were almost completely worn away with constant sharpening after having been chipped against the ice. When cutting the frozen trees, it had often happened that the tool would strike on a part that had not been properly thawed before the fire, and it would be chipped in a moment. This meant more grinding and shortening of the blade.

The fire had not swept Bar Hill, where the three men were buried and the annexation plate was erected. Had the latter been destroyed, Captain James would certainly have placed a new one. It was a matter of great importance officially to claim the land and to leave a record of his

visit. He would certainly have mentioned it had he had to renew the plate.

"The 30th we earnestly continued our Labour, and brought our Sails to Yard; and by eleven o'Clock at Night had made a pretty Ship, meaning to have finished our Business with the Week and Month, that we might the better solemnize the Sabbath ashore, and so take leave of our wintering Island."

They were anxious to leave at the earliest possible moment—and very wisely. As regards wind and weather, they could depend on nothing.

"The Wind had been variable a great while, and the Bay so clear of Ice, that we could not see a Piece of it, for it was all gone to the Northward. Hoping that it may give Content to some Readers, I will relate the Manner of the breaking of it up. It is first to be noted, that it did not freeze naturally above six Feet, the rest is by Accident; such is that Ice, that you may see here six Fathom thick; this we had manifest Proof of, by digging the Ice out of the Ship, and by digging to our Anchors before the Ice broke up."

"In May, when the Heat increaseth, it thaws first on the Shole by the Shore-side, which when it hath done round about, then the Courses of the Tides, as well by the Ebb and Flood, as by their rising and falling, do so shake the main Ice, that it cracks and breaks it. Thus, when it hath got room for Motion, then runs one Piece of it upon another, and so bruises and grinds itself against the Sholes and Rocks, that a Ship may run through it. Besides this, much of it is thrust upon the Sholes, where it is consumed

by the Heat of the Sun. The Season of this Climate is most unnatural; for in the Day-time it will be extreme hot, nay intolerable, by Reason it is a sandy Country. In the Night again it will freeze an Inch thick in the Ponds, and in the Tubs about, and in our Houses; and all this towards the latter End of June. The Musketoes, upon our coming away, were insupportable. We tore an old Flag in Pieces, and made us Bags of it to put our Heads in, but it was no Fortification against them; they would find ways and means to sting us, that our Faces were swoln out in Pimples, which would so itch and smart, that we must needs rub and scar them; and these Flies, indeed, were more tormenting to us, than all the Cold we had endured before."

Many regions of Canada are notorious for their mosquitoes, and Charlton Island was no exception. Travellers have often written bitterly of these pests of the marsh and river districts. The mosquito of the northern regions seems to be of a worse variety than that from farther south, though it is not in evidence all the year round. But Captain James exaggerated when he said that they were worse than the cold. His log entry magnified the present at the expense of the past.

"July 1632. The 1st of this Month we were up betimes, and I caused our Ship to be adorned the best we could. Our Flag in the Poop, and the King's Colours in the Main-Top. I had provided a short Account of all the Passages of our Voyage to this Day. I likewise wrote in what State we were in at present, and how I intended to prosecute this Discovery, both to the Westward and to the

Southward, about this Island. This brief Discourse I had concluded, with a Request to any noble minded Traveller that should take it down, or come to the Notice of it; that if we should perish in the Action, then to make our Endeavours known to our Sovereign Lord the King. And thus, with our Arms, Drums, and Colours, Cook and Kettle, we went ashore, and first we marched up to our eminent Cross, adjoining to which we had buried our dead Fellows. There we read Morning Prayers, and then walked up and down till Dinner-time. After Dinner we walked up to the highest Hills, to see which way the Fire had wasted; we descried that it had consumed to the Westward sixteen Miles at least, and the whole Breadth of the Island. Near our Cross and Dead it could not come, by Reason it was a bare Sand."

Captain James still hoped to make further exploration. It was in keeping with the amazing tenacity of purpose that he had shown throughout. After having lived by the Grace of God through a nine months' winter under terrible privations, he was now willing to risk being wrecked on those unknown shores, or being again caught by the winter in James Bay. If he succeeded, it meant new territories to the English Crown, and, possibly, the discovery of the North-west Passage, which was the main object of his voyage; if he failed, it meant certain death to them all, for none could hope to live through another such winter as the one that they had just completed. But it was their last summer of exploration on that voyage. It was to be only a deviation from his direct course home—unless, indeed, he found the long-sought passage—and as such he viewed it.

While in the north-west it would be foolish to waste the opportunity of discovering all that he could. He left a record of all that they had done and hoped to do in case any of the manifold chances of disaster overtook them.

"After Evening Prayer I happened to walk along the Beach-side, where I found an Herb resembling Scurvy-Grass; I had some gathered, which we boiled with our Meat to Supper."

"It was most excellent good, and far better than our Vetches. After Supper we went to seek for more of it, which we carried off to the Quantity of two Bushels, which did afterwards much refresh us; and now the Sun was set, and the Boat came ashore for us; whereupon we assembled ourselves together, and went up to take the last View of our Dead, and to look to their Tombs, and other things. So fastening my Brief, which was securely wrapped up in Lead, to the Cross, we presently took Boat and departed and never put Foot more on that Island."

This was on July 1, 1632. They left their dead under the three stone cairns on the top of the sandy hill, and guarded by the great wooden cross which bore the lead-wrapped portraits and the documents of the voyage and annexation. Never again did they visit Charlton Island—the scene of the hardest winter that any of them had ever imagined.

"This Island, and all the rest, as likewise the Main, is a light white Sand, covered over with a white Moss, and full of Shrubs and low Bushes, excepting some bare Hills and other Patches: In these bare Places the Sand will drive with the Wind like Dust. It is very full of Trees, as Spruce

and Juniper, but the biggest Tree I saw was but a Foot and a half in Diameter."

"At our first coming hither we saw some Deer, and killed one, but never any since; Foxes all the Winter we saw many, and killed some Dozens of them; but they went all away in May; Bears we saw a few, but killed none; we saw some other little Beasts. In May there came some Fowl, as Ducks and Geese, of which we killed very few; white Partridges we saw, but in small Quantities, nor had we any Shot to shoot at them. Fish we could never see any in the Sea, nor no Bones of Fish on the Shore-side, excepting a few Cockle-Shells, and yet nothing in them neither."

For all practical purposes, the land was utterly barren. A crew that wintered there could not depend on finding anything except wood and water. The land for hundreds of miles around was now English, and there were none to dispute the possession—nor were there likely to be for many a hundred years. There was nothing to draw mankind to that desolate region.

"Sunday being the 2d of July, 1632, we were up betimes, about stowing and fitting our Ship, and weighing our Anchors; which, when the last was a Trip, we went to Prayers, beseeching God to continue his Mercy to us, and rendering him Thanks for having thus restored us. Our Ship we found no Defect in. We had abundance of such Provisions as we brought out of England, and we were in indifferent Health, and gathered Strength daily. This being done, we weighed and came chearfully to sail."

Thus at last they put to sea.

"The Wind at North-west, bad to get away, wherefore we stood over to Danby Island, to take in more Wood, and there to be ready to take the Opportunity of a fair Wind. I went ashore with the Boat, for some of the Company had told me they had seen some Stakes the last Year driven into the Ground, where we came ashore, whilst some gathered Wood. I went to the Place, where I found two Stakes drove into the Ground a Foot and a-half, and Fire-brands, where a Fire had been made by them. I pulled up the Stakes, which were about the thickness of my Arm, and they had been cut sharp at the Ends with a Hatchet, or some other good Iron Tool, and driven in as it were with the Head of it. They were distant about a Stones-throw from the Water-side. I could not conceive to what purpose they should be there set, unless it were for some Mark for Boats. This augmented my Desire to speak with the Savages, for, without doubt, they could have given us Notice of some Christians with whom they had Commerce."

It was ten months since they had seen any human being but themselves. The last time had been on September 1st, when they had met Captain Fox in command of His Majesty's Ship whose name is not told us. It is curious that, through the whole of his history, Captain James never mentions the name of a ship.

Had they met the savages they would have gained little, though they might possibly have learnt that there were no white men within hundreds of miles of them. They might have been told that there was no open water to the south-west, but it is unlikely that they could have understood

each other sufficiently well for the information to be given. On the other hand, they might have had a hard fight, for which they were in no condition. Altogether, the disadvantages of a meeting would probably have outweighed the advantages.

"About four in the Evening I returned with a Boat's Lading of Wood, and the Wind something favouring, we weighed with our Lead, seeking out a Channel amongst those dangerous Sholes. In the Evening the Wind opposing itself, we came to Anchor betwixt Charlton Island, and that Island we named the last Year, in memory of that honourable Gentleman Mr. Thomas Cary, one of the Bed-chamber to the King, Cary's Island, where we rid all Night."

They had run to the eastward, sounding all the way, but had returned almost to where they had wintered. Cary's Island lies to the south-east of Charlton Island and at no great distance. They were sheltered there from almost all winds.

"On the 3d, at Break of Day, we weighed, with a bare Wind, and, sounding up and down for a Channel, we were many times in five and four Fathom Water. The Wind larging upon us, we stood away West by Noon; we saw all the Ice Southward of us, endeavouring therefore to compass about the Western Point of Charlton Island, and so to seek to the Southward, we found it all Sholes, Rocks, and Breaches. By four in the Afternoon we saw the Western Land, but all full of Ice; whereupon, as the Wind favoured us, we stood along it in sight to the Northward."

The wind was nearly east. They had crossed the

entrance of what is now Hannah Bay, having apparently passed along the north shore of Charlton Island. They sighted the mainland somewhere between the outfall of the Moose River and Nomansland Point. Between the Moose River and Albany River, lying some hundred miles to the north, there is no harbour of any kind. The low shore was sheathed in ice, shallow and full of rocks. With the easterly wind they were again experiencing that dead lee shore which had caused them so many anxieties on their outward voyage.

"The fourth was calm, but so very thick and foggy withal, that we could not see a Pistol-Shot about us; we knew not which Way to turn us. Now to avoid telling the same thing twenty times, we were continually till the 22d so pestered and tormented with Ice, that it would seem incredible to relate it; sometimes we were so blinded with Fog, that we could not see about us; and we did so strike against the Ice, that the Fore-part of the Ship would crack again, and make our Cook and others to run up all amazed, and think the Ship had been beaten all to Pieces. Indeed we did hourly strike such unavoidable Blows, that we left the Hatches open, and twenty times in a Day the Men would run down into the Hold to see if she were bulged. Sometimes when we had made her fast in the Night to a great Piece of Ice, we should have such violent Storms, that our fastning would break, and then the Storm would beat us from Piece to Piece most dreadfully; other times we should be fast inclosed among great Ice as high as our Poop: This was made, as I have formerly said, by one Piece running upon another, which made it draw eight or

ten Fathom Water; besides which the Lowermost would rise from underneath, and strike us under the Bulge with Pieces of five, six, nay of eight Tons, that many times we have pumped clear Water for an Hour together, before we could make the Pump suck. Among these several and hourly Dangers, I overheard the Men murmur, and say, That they were happy that I had buried, and that if they had a thousand Pounds they would give it, so they lay fairly by them; for we, say they, are destined to starve upon a piece of Ice. I was forced to suffer all this with Patience, and to comfort them again, when I had them in a better humour."

It is a striking picture of a voyage of exploration in the Arctic. When a ship is once safely locked in field ice, she may be ultimately crushed and sunk, but she does not suffer the constant heavy pounding that she does when running blindly through broken floes. The crew have not the constant labour of working the ship; they have not actively and constantly before their minds, conjured up by the repeated blows of the ice, the lively idea that she may sink beneath them at any moment. The open hatches are eloquent of what they feared. At any moment they might see the water welling up between the casks in the hold and feel the ship grow sluggish in her movements and then settle rapidly, leaving them to jump for the nearest block of ice—for there would be no time to launch the boats. That the water thrown by the pumps was clear showed the size of the leaks in her; had it been coming in slowly and washing about in her it would have been coloured from the bilges.

We are not told on which side of Akimishi Island they passed. They may have run through the straits to the west of it in fog. It is a low-lying island; perhaps they never saw it. They took eighteen days to reach Cape Henrietta Maria, a distance of about 300 miles; eighteen days of fogs and calms interspersed with violent gales, the one being as bad as the other. No wonder that the men murmured.

"The 22d, having been vexed with a Storm all Night, and this Morning with a thick Fog, we drove in thirteen Fathom Water. About Noon it cleared, and we saw the Land, and at that Instant had a good Observation, whereby we knew it to be the Cape Henrietta Maria. I made the Master stand in with it, and in the mean Time we fitted a Cross, and fastened the King's Arms, and the Arms of the City of Bristol to it. We came to an Anchor within a Mile of the Shore, in six Fathom Water, so we hoisted out our Boat, and took our Arms and our Dogs, and went ashore. Upon the most eminent Place we erected the Cross; and then seeking about we soon saw some Deer, and by and by more and more. We stole to them with the best Skill we had, and then put our Dogs on them, but the Deer ran clear away from them at Pleasure. We tired the Dogs, and wearied ourselves, but to no purpose, neither could we come to shoot at them. I saw, in all, about a Dozen old and young, very goodly Beasts. We took half a Dozen young Geese on the Pools, by wading into them; and so returned to our Boat, vexed that we had found a Place where there were Refreshments, and we could get none of them. Whereas we had kept our Dogs with a great deal of Inconvenience aboard the Ship all the Winter, and had

pardoned them many Misdemeanours (for they would steal our Meat out of the steeping Tubs) in Hopes they might hereafter do us some Service; and seeing they now did not, and that there were no Hopes they could hereafter, I caused them to be left ashore. They were a Dog and a Bitch, Buck Dogs, of a very good Breed. The Dog had a Collar about his Neck, which, perhaps, hereafter may come to Light."

It was very irritating to be surrounded by fresh meat, all just out of reach, after their long months on salt provisions; but Captain James was very hard on his dogs. He was on his passage home, and might well have taken them: He had kept them all the winter, and the little extra time could have made no difference to him. Had he got frozen in again he might have eaten them. They had been cooped up all the winter and were hopelessly out of condition. They had no chance against the native deer. The fastest dogs in the world would have failed under such conditions.

"I saw no Sign of any Savages, nor could we find any herbs, or other Refreshments here. In the Evening, being returned aboard, and the Wind blowing fair at South, I caused the Master to weigh, and come to Sail, and to lose no Time, for we hoped for an open Sea to the North-west. This Cape has a very Shole Point that lies off it, which we endeavoured to compass. Sailing therefore upon shattered Ice, we came to very shole Water, four and five Fathom deep, and could not avoid it. At length, standing North, the Water deepened, but we came withal among great Pieces of Ice, which by reason of some open Water there were a pretty Sea. These hard Pieces of Ice made a most

dreadful Noise. It proved a fair Moonshine Night, otherwise it had gone ill with us. We turned among this Ice, staying the Ship, sometimes within her Length of great Pieces as bad as Rocks; but by Reason we were often forced to bear up, we let fall an Anchor, and stood all on the Decks to watch the Ice, sheering off the Ship to and again to avoid it. Thus having Poles and Oars to fend it, we could not keep ourselves so clear, but many Pieces came foul of us. We broke two of our great Poles with it, which were made to be handled by four Men, besides some other Damage. At Break of Day we weighed and sought all ways to clear ourselves of Ice, but it was impossible. I conceive it impertinent to relate every particular Day's Passage, since they were much alike to us. Our Endeavours were sometimes with our Sails, giving and receiving five hundred dreadful Blows in a Day."

They were proceeding very slowly to the north under the greatest difficulties. This part of their voyage was as dangerous as any that had gone before, except, perhaps, the time when they had been embayed in Hudson Strait on their way into the Bay. For weeks at a time, a mistake or a moment's carelessness would have cost them the ship and, with her, their lives.

"Sometimes we stopped at an Anchor, when we could get a little open Water, and so suffer the Ice to drive to Leeward. Other times we should be enclosed among it, and then it would so break and rise, and leap up under us, that we expected every Hour to be beaten to Pieces. Besides we had such Storms in the dark Nights, as would break our Moorings we had made fast to some Pieces of

Ice, for Security in the Night Season; and then we were beat most dangerously from Piece to Piece till Day-light, that we could see to make her fast again. I forbear to speak of the Fogs which we had daily, which froze our Rigging Day and Night; besides all which, we should come into most uncertain Depths, sometimes twenty Fathom, next Cast ten, next fifteen, then nine, rocky foul Ground; the great deep Ice withal, driving on these uncertain Depths, did so distract the Tides, and deceive us so much in our Account, that by the 30th we were driven back so far to the Eastward, and to the Southward of the Cape, that at five o'Clock in the Evening it bore North-west of us some three Leagues off, contrary to our Expectations."

In eight days they had lost five leagues. And during the whole of that time they had been struggling day and night to get to the northward. Day repeated day in an endless succession of disappointments. After striving during the whole of July, they had only made some 300 miles, and that only by the exercise of unfailing care and fine seamanship. At any moment throughout the month they might have found themselves in the water, with the ship sunk and nothing but the drifting floes around them. It was enough to try the nerves of the strongest. The strain on Captain James and the Master—the two who were responsible for the lives of all—was immense.

CHAPTER XI

The ship was feeling the effects of the constant hammering among the ice. She had been much weakened before she had been sunk for the winter and was in no state to stand any further strain being put upon her. She had stood more than could be expected from any ship; it was not fair to ask much more of her.

"With all these Mischiefs, our Ship now became very leaky, that we pumped every half Watch. Here I called a Consultation, and after considering all our Experience, we were of Opinion that it was impossible to get to the Northward, or to the Eastward, by Reason of the Ice; wherefore I resolved upon this Course; when the Wind blew South, it would blow the Ice off the South Shore, then we would seek to get to the Westward, betwixt it and the Shore. I must confess that this was a desperate Resolution, for all the Coast we knew to be shole and foul Ground, all Rocks and Stones; so that if the Wind should shift to the Northward, there would be, without God's Mercies, little Hopes of us. But here we must not stay, the Nights grew long, the Cold so increased, that betwixt the Pieces of Ice the Sea would be frozen. I caused the Ship to be fitted, and Places again prepared to sink her a second Time, if so be, we were put to Extremities."

The rocks were no worse than the floes. Either could sink a ship. They had been along the coast on their run south, but their survey had only shown them how dangerous it was. They had not known their own position accurately enough to plot the reefs they found, and now they did not know their position well enough to avoid them had they been able to plot them before. They knew that there was no harbour for hundreds of miles and that the whole coast was bad—but nothing else. Their earlier experience warned them not to close the land under any considerations whatever. Now they were proposing to coast the whole length of the land, close in all the time to keep inside the ice.

The danger of the undertaking can hardly be imagined, but it is pointedly shown by the fact that Captain James again prepared his ship for sinking if required. As things stood then, it seemed to be quite probable that they might be frozen in on the western shore of Hudson Bay for another winter. If so, their position would be far worse than it had been before, not only because they were themselves not in such good shape to withstand the hardships, but also because of the physical conditions of the locality. There was less wood and no sheltering hills along the west side of the Bay; they were further to the north and more exposed to the heavy ice that filled the Bay in winter.

"We presently put our Project in Execution (the Wind being at South) and got about the Sholes of the Cape, standing then into the Shoreward, to get betwixt it and the Ice. We came into four Fathom Water (very foul rocky Ground) thinking to come to an Anchor all Night,

and let the Ice drive to Leeward. But still there was so much Ice betwixt us and the Shore, that we were forced to bear up against it into deeper Water, and to let the Ship drive among it; the Wind increasing as endured a most dangerous dark Night of it."

"In the Morning we fell to work to get the Ship again out of the Ice into some clear Water, which we saw West by South of us. Some of our Company went out upon the Ice to heave her with their Shoulders, whilst others stood aboard with their Poles; the rest stood to fill and spill the Sail. By nine in the Morning we had got into some clear Water, and stood West and by South into four Fathom Water, foul Ground; but being not able to weather some Rands of Ice which drove, we were forced to stand off again, and when the Evening grew dark to come to an Anchor. About Midnight there came a great Piece of Ice (which we could not avoid) athwart of our Cable, and made her drive and drag her Anchor: This drove her into shole Water, it being very rocky and foul Ground: We brought the Cable to Capstang, and heaved with such a Courage that we heaved home our Anchor from under it. Thus we endeavoured the best we could to keep ourselves in eight or ten Fathom Water. It then pleased God that the Wind blew along the Shore, otherwise it had gone far worse with us."

When close in, they were very little better off as regards the ice and they were far worse off as regards the rocks. Thus ended July. It had been a month of bitter labour with endless risks and disappointments. They had made practically no headway towards home, and the nights were

steadily closing in with an increasing cold. On the whole, they were worse off at the end than they had been at the beginning of the month, for they had the same distance to go and a shorter time to do it in.

"August 1632. The 1st of this Month, at break of Day, when we could see all about us, we were forced to struggle again with the Ice, and to get in nearer to the Shore, by reason the Wind was opposite, to come to an Anchor; we let the Ice drive to Leeward, hoping there was a clearing Sea to the Westward: The Ice drove very thick upon us, and one Piece came foul of us, which touched our Sprit-sail Yard, and made the Ship drive; but we soon cleared ourselves of it. Then we weighed, and stood in nearer to the Shore; but the Water shoaled, and there were so many thick Rands of Ice betwixt us and the Shore that there was no coming to an Anchor, so we turned betwixt the Ice, many Pieces of it being a-ground in Shole Water, and few Pieces distant one from the other a Cable's Length: This Day we saw two Sea Mawes on the Ice. The 2d in the Morning we were glad at break of Day, having most dangerously turned among the Ice, and endured many a Blow; we stood in again to the shoreward, to see if we could get some clear Water; for to the Northward it was all impassable Ice: We stood into five and four Fathom, but still all impassable with Ice, so we stood off again into deeper Water; and in the Evening we were inclosed with extraordinary great Pieces; it was a very thick Fog withal, so that we made fast the Ship to a great flat Piece and went to sleep, after our extreme Pains-taking."

They had to rest at some time, and the only chance they

had was in the intervals between the gales. Provided that a good lookout was kept, the hands off duty could turn in and sleep with some sense of security. When it was blowing, nobody could sleep. The heavy blows of the ice against the hull prevented all rest, and added to that was the constant expectation of being turned out in a hurry to save the ship from being sunk or to jump for the nearest block of ice.

"The 3d, 4th, and 5th we were inclosed among very great Ice, and it blew such a Storm of Wind that we, endeavouring to get forward to the westward, struck such heavy Blows that made all the fore-part of the Ship crack again; then we gave over working, and let her alone among it, but then the Ice would break and rise under us, and that endangered us as bad as the former. Our Ship made now above a Ton of Water every Watch, which we pumped out before our other Labour. God be merciful unto us among all these Dangers."

They were running about west-north-west. Any wind except from between south-west and south-east was bad. All other winds either headed them or set them on a lee-shore and piled the ice in on to them. Southerly winds would drive the ice to sea, thus opening a passage along the land, and at the same time they got the protection of a weather shore. Even then they could not risk carrying much sail, for if they had too much way on the ship and she struck a piece of ice, she would assuredly sink. Their safety lay in their getting a succession of southerly winds, which was the one thing that they did not get.

"The 5th at Noon we were in Latitude 55 Degrees, the Cape bearing off us South-east by East, twelve Leagues off, and this all we have got since the 22d of July; all Night it blew a violent Gale of Wind at West-north-west, and about Midnight our Hawser (by which we made fast to a Piece of Ice) broke, and we lost four Fathom of it. We beat all Night most fearfully, being tossed from Piece to Piece, because in the Dark we durst not venture our Men to go on the Ice, for fear of losing them. All the 6th the Storm continued, and drove us again quite with the Ice almost to the Cape. The 7th was the most comfortable Day we had since we came out of our Wintering-place. The Wind came up fair at East, and we got, although with our former Inconveniences and Dangers, nearer the Shore, and into some open Water, making good way to the Westward. Add to this that our Leak now stopped of its own Accord, so that we pumped but little. We sailed all Night, keeping good Watch on the Fore-castle, bearing up from one and loosing from another. Thus we did the 8th also; but then the Wind shifting to the North-west, it drove the Ice on the Shore, and we came to an Anchor in eight Fathom Water. The main Ice we had some two Miles to windward of us; but the Set of the Tide kept it off from us. At Noon we were in Latitude 55 Degrees 34 Minutes. In the Evening a Range of Ice drove upon us, which made us weigh, and stand in nearer the Shore into six Fathom, and there come to an Anchor. The Wind increasing about Midnight, the Ship drove, and was quickly in five Fathom Water, wherefore we let fall our Sheet Anchor, and both held her; but what troubled us

was, we expected every Minute that the main Ice would come upon us, then there would be no Hope but to run on Shore."

They had been for fourteen days within sight of Cape Henrietta Maria, unable to get away from it in any direction. They had tried to the north-eastward, now they were trying to the west. One direction seemed to be as bad as the other.

The big leak stopped. It had happened before with some of their other leaks, and the ship was not now leaking at all. The capacity of the wood to swell and close leaks saved them on more than one occasion.

They had sacrificed the advantage of having plenty of sea-room to the necessity of getting north as quickly as possible. They had to put up with the risk of being driven on shore or stranding on a reef. They knew it when they decided to try along the land.

"The 9th in the Morning we weighed our second Anchor, the Ice being within less than a Mile of us. About eight in the Morning a Point of it came foul of us, which we prevented by weighing, and came to Anchor in three Fathoms and a Half Water. The Wind continued North-north-west, which was in on the Shore. This Morning I caused all our empty Casks to be filled with Water, and the Ship to be left unpumped, and the Place looked to that we had prepared to sink her, for we were at present in as apparent Danger as any time this Voyage, and to our great Grief it was all full of foul rocky Ground. The Danger of this was, if we made fast to a Piece of Ice that drew deep Water, then as soon as it came to Ground on the Rocks it

would break all to Pieces and betray us to our Destruction. About Noon there came foul of us the Point of a Range of Ice, which we resolved to endure the Extremity of with an Anchor, thinking to ride and break through it, we now perceiving some open Water beyond it; thrusting therefore, and fending with our Poles, at last a great Piece of Ice came athwart our Hawser, and there was a brisk Sea among it: The Ship now fell upon it so violently that I expected every Blow she would beat out her Bows; at length she drove with it so that I thought the Cable had been broke; we brought it to Capstang, to heave it in, but found that our Sheet Anchor was broke in the Middle of the Shank. We presently set our Sails thereupon, endeavouring that Way to edge in amongst the Ice off of this dangerous Shore. It pleased God to favour our Labour so, that by eight in the Evening we got off into seven Fathoms Water, and a dark Night coming on we made fast to the biggest Piece we could find. It blew all Night, but at Midnight the Wind came up at North, which was more on the Shore than before."

The loss of their sheet anchor was serious, for they were very short of anchors. They had lost or broken several at different times, and if they lost all their ground tackle they could hardly avoid being cast away. They were constantly relying on their anchors to bring them up when running suddenly into danger, and to hold them when riding out a gale on a lee shore.

They were still working to the west. The shore trends about north-west by west for some 450 miles between Cape Henrietta Maria and Cape Tatnam. They were

slowly and painfully coasting along that desolate, low-lying land. The western entrance to Hudson Strait lay some 800 miles due north-east of them. By going round the coast to the west, they were doubling the distance that they would have to cover, but by so doing they hoped to avoid the heavy ice in the middle of the Bay.

"By break of Day, on the 10th, we were driven into four Fathom very foul Ground, so that the Lead fell off the Rocks three or four Foot, we set our Sails and used our utmost Endeavours to edge off. Some of us went upon the Ice to haul her, others stood with Poles to thrust by Night. At Night we got off to eight Fathoms, and made fast to the biggest Piece we could find. If any Man should ask, Why we kept so near the Shore in this continual Danger? I answer, because in the Offing, the Ice was so extraordinary thick that we could make no Way through it; besides, when we were in that great thick Ice, and the Wind came up fair at South, or South-east, or East, we could not get out of it; therefore we chose to run this Adventure, and so prevent and overcome all Dangers with God's Assistance, and our extreme Labour."

"The 11th in the Morning was a thick Fog, yet there sprung up a Gale of Wind at East, and we made in for the Shore. From the 11th to the 14th the Wind continued fair, and we made all the Sail we could Night and Day as the Ice would suffer us; we had the Shore in sight by Day on one Side, and the Ice within two Miles on the other; and we sailed among dispersed Pieces loosing from one, and bearing up for another. The 14th at Noon we were in Latitude 57 Degrees 55 Minutes. In the Evening we

were embayed in Ice, and stood South-east to clear ourselves of it, but could not; but seeing from the Topmast-head clear Water over it, we put up to it. But there arose a very thick Fog, and Night came on withal, that we were forced to fasten to a Piece of Ice expecting Day, and better Weather."

If their latitude was right, they were clear of Cape Tatnam, and their course must be altered to north. They were making some progress, for they had come over 800 miles from Charlton Island, though it had taken them a terribly long time. They had still a long way to go before they reached the Atlantic, but with reasonably good luck they should be able to clear the land before everything was again frozen solid for the winter. They were not yet by any means clear of their dangers, however, and if, by any chance, they were much delayed, they would not get through Hudson Strait in time. And every hour brought its peril.

"The 15th in the Morning, although the Fog was very thick, we would endeavour to get out of the Ice, and stood away West; but within two Hours the Water shoaled from forty to twenty-five Fathoms; whereby we knew that we had the Shoaling of the western Shore. Then we shaped our Course to the northward; the Fog continued so thick, that we could not see a Pistol-shot about us. We had not stood this Way two Hours, but we heard a Rut of Ice ahead of us, which made the most hideous Noise of any I had heard this Voyage. We hauled our Tacks aboard, and stood to the Westward in this Day darkness; hearing it sometimes, and seeing it sometimes,

which was very large, deep, and high Ice above the Water; we weathered it all except some few Pieces, and got into open Water. About Sun-set there came a sudden Gust at North-north-west, and before we could handle our Sails it was with us, and put us into some Trouble; it dallied with us, by Gusts, till nine o'Clock; and then it fell into a most violent Storm. We considered where we might have the clearest Drift, and so took in all, and let her drive her Head to the shoreward. Before Midnight the Water shoaled on us unto fifteen Fathoms."

Apparently the wind was from about south-south-west. They ran north and then hauled their wind and stood to the west, just weathering the ice when close-hauled on the port tack. A squall from the north-west then took them flat aback—a most dangerous thing. It caught them suddenly, and they had not time to brace their yards round to meet it. They shortened sail right down and ran for the land through the night in heavy fog. It was a dangerous step, but there was nothing else to be done. Their course was somewhere about south-west. They were then west and a little north from Cape Tatnam. With any northerly wind they were in great peril. If they ran far to leeward they would be embayed between Cape Tatnam and the western shore, with Port Nelson under their lee. It was not a port into which they could run blindly before a gale of wind. It was sheathed in ice and quite uncharted. Except for Port Nelson, there was no shelter of any kind. The land was low, and invisible until it was close aboard.

"Then we turned her Head to the eastward, and set our main Course low-set, but as much as she could bear.

The Water deepened but little, and we knew we were on those rocky Sholes which we struck on the last Year; God be merciful unto us. Here was the first great breaking Sea we had this Year."

They turned to get clear of the bay and to weather Cape Tatnam. To leeward was the land; to windward was the ice setting steadily down on them with the gale behind it. Even though the bigger pieces stranded before they reached the ship, the bulk of it was light enough to float where she could float, but yet was quite big and heavy enough to crush her into matchwood.

They set the reefed mainsail and drove her, seeking a way through the floes. It was taking a big risk, but anything was better than being forced on shore. They had to claw off. They had to take their chance in the shallow, reef-sown waters. At the pace the ship was travelling a touch would have ripped her bottom out and probably brought down her masts as well. But that risk was all in the day's work; they had to take it or perish, and their luck held.

"The 16th, in the Morning, we were driven to a great Rand of Ice; to avoid which we set our Force and Course too, and stood to the shoreward in fifteen Fathom Water, and then about again. We stood in a Mile to the Ice, but there was a great swelling Sea in it, that it was not durable; so we stood out again. About three in the Afternoon the Storm broke up, and blew fair at North-west, which produced Good for us, for we had not Drift for four Hours, besides, it was but five Leagues betwixt the Sholes and the Ice: We set all our Sails, and endeavoured to weather the

Ice, but in the Evening we were still pestered with it. By Midnight we knew not which Way to turn, nor what to do; so we took in all our Sails, and let her drive among it. The Ice beat us on every Side, for there went among it a very great full Sea. The 17th in the Morning, when we could see about us, we were in the Midst of it; but in the last Storm it was all broken to Pieces, as big as a Boat of three or four Ton, which gave us many a heavy Blow in the dark Night. If this Storm had taken us among it, it had broken us all to Pieces without God's miraculous Preservation. We made Sail, and endeavoured to clear ourselves of it to the Northward, which, by eight in the Morning, we had done; we then went to Prayer, and gave God hearty Thanks, that had delivered us out of it; for we were hourly, for the Space of six Weeks, as it were in the Jaws of Death; yea, never had any, that I have heard of, been for such a Space in such long Nights upon a foul Shore, tormented with Ice, as we have been."

He was quite right. For six weeks the ship had never been out of peril. Ships may often get on a lee shore. Clawing off a dangerous coast is part of a seaman's ordinary risks in a sailing ship. But rarely have they been locked to the land by ice on both bows and to windward, which defeated their every effort to get an offing; and that for weeks at a time.

When the gale moderated they were terribly near the rocks—so near that another four hours would have put them ashore.

"At Noon we were in 58 Degrees 20 Minutes. Now, as touching the Dissolution of the Ice, we found that this

Storm had torn and shattered this Rand of Ice which was on the Outside, although it must have a long Time to work into the main Body of it. I have in July, and in the Beginning of August, taken some of the Ice into the Ship and cut it square, two Foot, and put it into the Boat where the Sun shone with a very strong Reflection about it, and notwithstanding the Warmth of the Ship, for we kept a good Fire, and all our Breathings and Motion, it would not melt in eight or ten Days. It was our Practice, when we should be two Days together fast to a Piece of Ice, to set Marks to it, to see how it consumed, but it yielded us small Hope of dissolving; we could not in that Time perceive any diminution by the sinking of it, or otherwise; nevertheless, I think that it is ruined by Storms, or consumed by Heat some Years, or else the Bay would be choaked up; but I confess these Secrets of Nature are past my Comprehension."

They were not towing a boat and had to rely on sounding from the ship as they proceeded. They dared not risk the boat, for they had only the one. No boat would have been of any use in the storms that they had weathered; she would have filled or been stove in by the ice. If she had been sent away with a crew and a gale had come on suddenly, as it so often did, she would never have got back to the ship.

"Being out of it (but we yet saw it from off the Decks to the Eastward) I ordered the Master to steer away North and by East, keeping the Shoalings of the western Shore. The 18th at Noon we were in Latitude 58 Degrees 36 Minutes."

"The 19th we continued our Course betwixt the North-north-east, and the North and by East, and by Noon were in Latitude 61 Degrees 7 Minutes, some twelve Leagues off the Shore: I ordered the Master to shape his Course North-east, to look into that Place betwixt Cary's Swan's-nest and Ne plus ultra."

They had worked up the coast past Cape Churchill and were off Cape Eskimo, when Captain James at last laid a course for Hudson Strait. He had some 400 miles to run before he would sight Cape Southampton at the south-west corner of Coats Island. He was very lucky in crossing the northern end of Hudson Bay without meeting with ice. Most of the floes had been set to the southward by the northerly gales, and that had cleared the water through which he had to pass.

"The 20th we were in Latitude 61 Degrees 45 Minutes. This Day we saw some few Seals about the Ship. The 21st the Water shoaled so that it was concluded that we were near Land; but about Noon the Wind came up at North-east, directly opposite; we loosed as near as we could, and as it larged we came to stand East, and East and by North. The 22d we fell with the Land to the Westward of Cary's Swan's-nest, where we had forty Fathoms three Leagues off. We stood in within a League of the Shore into eighteen Fathoms, and seeing the Land to the Southward of us, we compassed about it, it being Cary's Swan's-nest, which is in the Latitude of 62 Degrees. All the 23d we sailed North-east, and, for the most part, in Sight of Land."

They had made a landfall between Cape Southampton

and Cary's Swan's Nest, having passed diagonally across the north-western corner of Hudson Bay. It had taken them about three days, so they had averaged 130 miles a day with the wind on their port beam. Only for a short time had it headed them. They had been very lucky so far, but they still had another 600 miles to go before they could say that they had seen the last of the ice. Until they were clear of that they were not clear of danger; anything might happen at any moment to defeat them. Their safety mark was the long swell of the Atlantic; once they could feel that, they could feel safe—and not till then. But Captain James still wished to make some more discoveries before he finally left the North.

CHAPTER XII

"The 24th at Noon, by Judgment, we were in Latitude 69 Degrees 30 Minutes, having sailed a North-east Course: All this Day was a very thick Fog, which about one o'Clock cleared a little, so that I expected to see the Land; some of our Men, better sighted, spied it about two Leagues off. I knew it could be none other than Nottingham Island, though it was something contrary to the Expectation of our best Mariners: We stood in to make it, it was the North-end of it, and it bore off us due East; I was soon assured of it, and I ordered the Master to shape his Course North-west and by North. Both he and others were unwilling, but without much-ado submitted themselves: It was very foul, thick Weather. The Reasons of my Resolution were these: The Time of the Year was far spent, and the Winter came upon us, therefore I would make the shortest Way betwixt the Lands already discovered. If I found an open Sea, I had my Desire, and then I intended to proceed to the utmost of our Power."

From the northern end of Nottingham Island their shortest course to the Atlantic was through the strait between Nottingham Island and Salisbury Island—unless it was choked with ice, which was only too probable. If so —and they could not tell till they had been to see—their

best way was to alter course to the southward, round the south end of Nottingham Island, and so into the main western entrance to Hudson Strait. All except Captain James wanted to sail for home at once, without spending any more time on discoveries. They had time enough, but not too much; certainly none to spare for any further exploration.

"If I met with Land, I should then finish the Discovery, it not being above fifteen Leagues from Land to Land, and not above ten Leagues from Nottingham Island to the Main of the North Shore, we made what sail we could, it blowing a very stiff Gale of Wind till eight in the Evening; then it began to blow fiercely, and we took in our Topsails, and stood under our two Courses and Bonnetts; at nine it blew a violent Storm at South-south-east, so that we took in our Foresail, and let her drive North-west. All Night it continued an extraordinary Storm; that we heaved the Lead every half Watch; but the Ship drove so fast that she would be past the Lead before there were two Fathoms of Line out, all the Night being exceeding cold withal. The 25th the Storm continued, and so perplexed us, that there were but few that could sleep or eat for twenty-four Hours. About six in the Afternoon the Storm began to abate, yet there blew a fresh Gale of Wind between the South and South-west; we stood West-north-west, and made a North-west Way; when suddenly the Sea became very smooth. We reasoned thereupon among ourselves, What might be the Cause of it? We all thought it to be a Leeward Tide, nothing doubting what we afterwards

encountered; the Ship had a very quick Way in the smooth Water."

They were being set dead away from Hudson Strait, and up into the unknown waters of Fox Channel. Luckily there was deep water all the way. The ship was running very fast in the pitch dark with ice in the vicinity. They hove the lead every two hours, but could find no bottom. The sky was heavily overcast, neither moon nor stars were visible; they were running blindly and trusting to the luck that had never yet failed them. There was nothing else to do. They were making about two points leeway with the gale on their port quarter, but the knowledge meant little to them, for they had no idea of what was ahead.

When they ran into smooth water they had got under the lee of the great south-west promontory of Southampton Island and its barrier of heavy ice. That places them well in the entrance to Fox Channel.

"The 26th by two in the Morning we were suddenly got among the Ice, and it pleased God that the Moon at that Instant gave us so much Light that we could see a little about us. We would have stayed the Ship, but it was so thick to the Windward, and so near us that we durst not. We then bore up in this unexpected Accident, and I verily believe did not escape striking the Length of a Foot against the Ice, as hard as Rocks, two or three times, as the Ship now having Way after twelve Leagues a Watch."

She was running at nine knots, and a touch would have torn her side out.

"Then we stood close by the Wind to the Eastward,

expecting Day that we might see about us. We could from the Top-mast Head see the Ice from the North-north-west, the North-west, and so round about by the South to the East; and some there was to the Leeward of us. It was all flat sound Ice, and the Sea as smooth as a Wall amongst it. This struck us all into a Damp, whereupon I called a Consultation of my Associates, namely, Arthur Price, Master; William Clements, Lieutenant; John Whittered, Master's Mate; Nathaniel Bilson, Chirurgeon; and John Palmer, Boatswain; requiring them to advise and counsel me how to prosecute our Business to Effect. These went all together and reasoned amongst themselves, and then brought me their Opinions in Writing under their own Hands, viz. Our Advice is, that you repair homeward from this present 26th, and that for these Reasons:

"First, That the Nights are long, and so extreme cold withal that we can hardly handle our Sails and Rigging. Secondly, The Season is now subject to stormy and gusty Weather, as witness the present, it having continued a Storm ever since the 24th, and yet doth continue no Weather to discover in. Thirdly, We doubt whether Hudson's Streights be so clear of Ice that it may be passable in convenient Time, Winter coming on apace, before we are frozen up, seeing the Ice lies here all over the Sea. Fourthly, We must have fair Weather to pass the Streight, for which we may stay a long Time, if we neglect the first Opportunity. Fifthly, Our Ship is so very leaky that in foul Weather we are forced to pump every Glass, which is great Labour. Moreover, we know her to be so bruised

with Rocks and Blows of the Ice that she is no more to be adventured among it, but in saving our Lives homewards. Besides all this our Men grow very weak and sickly with extreme Labour. Sixthly, The Season of the Year is so far spent that we can expect no other Weather than we have had both lately and at present; that is to say, Snow and Fog freezing our Rigging, and making every thing so slippery that a Man can scarce stand, and all this with the Wind Southerly, which if it should come to the Northward then we are to expect far worse. Seventhly and lastly, That the Ice lies all in thick Rands and Ranges in the very Way we should go, as you and all Men here may see; and therefore we conclude as aforesaid, that there is no possibility of proceeding further: Wherefore we now counsel you to return homeward, hoping that God will give us a favourable Passage to return to our native Country, if we take Time and not tempt him too far by our Wilfulness."

Every reason was sound. The ice was all about them, even to the south and east, from which direction they had come. The calmness of the sea indicated that it was heavy and extensive. With such a violent gale blowing, small isolated lumps would not break down the heavy sea so completely.

In fine weather the ship did not leak to any serious extent, but she was badly strained all over, and when she was working in a heavy sea her seams opened and let in the water. As the weather was constantly bad, her men got little rest from the pumps. If she got much more heavy pounding, her weakened hull might be so damaged that

they would all have to take to the boat and leave her to sink. In that case, they would be no better off ashore in Baffinland than they would have been in James Bay—in fact, they would not be so well off, for Baffinland was the more inhospitable of the two, and there was no more likelihood of their being rescued by a passing vessel from the one than from the other.

Captain James agreed with the advice given him.

"Indeed most of these Difficulties were in view, and I could not reasonably oppose them, nor any Reason could I give for proceeding further; wherefore with a sorrowful Heart, God knows, I consented that the Helm should be borne up and a Course shaped for England, hoping that his Majesty would graciously consider our Endeavours, and pardon our Return. And although we have not discovered populous Kingdoms, and taken special Notice of their Magnificence, Power, Policy, etc. brought Samples home of their Riches and Commodities, pried into Mysteries of their Trade and Traffic, nor made any great Fight against the Enemies of God and our Nation; yet I hoped that our Willingness in those desart Parts may be acceptable to our Readers."

Though they had failed in the object of their voyage, they had added a vast continent to the Kingdom. None of them ever knew the immense work that they had done. Not until recent years has the great wealth of that area in fur, timber, and minerals been fully recognized. Even now its possibilities are only being explored.

Nobody could hold Captain James and his wonderful crew to blame for not doing more. They had done all that

was possible, and the voyage has remained to this day as a brilliant example of tenacity of purpose and courage under adversity that has rarely been equalled in history.

"When we bore up Helm we were in Latitude 65 Degrees 30 Minutes, at West-north-west and by North from Nottingham Island. Some were of Opinion that we were farther to the Northward; but by reason it was my Judgment, I chose to set down the lesser Distance. The 27th the Wind came up at North-west, with which we could not have gone on with our Design. That Wind made no great swelling Sea. By Noon we were athwart of Cape Charles, so that we went in between that Cape and Mill-Islands. The last Night it snowed very much, and was very cold, so that all our Rigging and Sails were frozen, and all the Land covered with Snow."

Nothing mattered: they were homeward bound. Only Captain James himself, the one responsible for the success of the voyage, regretted it. He felt his failure, not knowing of his success, and did not give to himself the credit that he and all of them so richly deserved.

"And here it will not be amiss to consider the Reasons of it: When I was upon Charles-Island (our Wintering-place) and in June when the Snow was clearest off the Ground, I have in the Nights, and some of them following the hottest Days, observed whether there fell any Dew or no, but I could never perceive any, and from Moss and Sand little I thought was to be expected. Now of what was exhaled from the snowy Ice and cold Sea could there probably be returned but the like again? Generally we continued on our Course blinded with Fog and dirty

Weather, and that intermixed with Snow and Frost among the dispersed Pieces of Ice, many of them higher than our Top-mast Head. With great variety of Windfalls we were driven within three Leagues of both Shores; so that the last of this Month we were in the Narrow of the Streight, which is about fifteen Leagues over; the South Shore was much pestered with Ice."

"September 1632. The 1st and 2d we endeavoured to get on our Way. The 3d in the Evening, as the Weather cleared up, we saw the South-End of the Island Resolution. These three Days and Nights have been extreme cold with Fog and Frost, insomuch that our Men in the Evening could hardly take in our Top and Sprit-Sails. We have sailed through much mountainous Ice, far higher than the Top-mast Head, but this Day we sailed by the highest I ever yet saw, which is incredible indeed to be related. Now as the Wind comes Easterly, we feel another Sea out of the Ocean, and the Ship labours with another Motion than she hath done with any that we ever observed to come out of the Westward. From the 3d to the 8th we had variety of Winds, and were got clear out of the Streights, but were now come into such a tumbling Sea, the Weather dirty and windy, and by Intervals calm again, that the Ship did so labour and roll that we thought verily she would have rolled her Masts by the Board. This made her so leaky that we were forced to pump every Glass; nay, her Seams so opened aloft that we lay all wet in her."

They had put the helm up on August 26th, and were off Hatton Headland on Resolution Island at the eastern

end of the straits in eight days. The distance is about 400 miles, so they had been making about 50 miles a day. In the straits they met with the great icebergs of the Atlantic. These they had not seen for eighteen months. They were much bigger than the ice of Hudson Bay, being the calvings of the huge glaciers of Greenland and the North brought south by the Labrador Current to the entrance of the strait. The flatter shores of Hudson Bay and the islands to the north do not produce the immensely thick, slowly moving glaciers from which alone the greater icebergs come.

Then they met the roll of the Atlantic. The long sea coming in from deep water was quite different from the short steep seas of Hudson Bay. They were a crew of deep-water seamen, and did not need the sight of Hatton Headland to tell them what it was. They were rolling gunwale under in the entrance to the straits for a week while trying to get clear of the land and make a good offing. All the time they were held up by head winds and calms. But they were safe from being frozen in again—the sound of the deep sea rollers assured them of that—and the first change of wind would take them finally out into Davis Strait on their run home. On the eighth they got a fair wind.

"This was the last Day we saw any Ice. The Wind now favouring us we made all the haste we could homeward, by the Way having endeavoured, observed, and experimented some Things in this our unfortunate Voyage. I perfected my Observations, which being afterwards commanded to publish, I here most submissively offer unto the

judicious Reader. What hath been long ago fabled by some Portuguese that should have come this Way out of the South Sea, the mere Shadows of whose mistaken Relation have come to us, I leave to be confuted by their own Vanity; these Hopes have stirred up from Time to Time the more active Spirits of this our Kingdom to research that merely imagined Passage. For my part I give no Credit to them at all, and as little to the vicious and abusive Wits of later Portuguese and Spaniards, who never speak of any Difficulties, as Shole-Water, Ice, nor Sight of Land, but as if they had been brought home in a Dream or Engine; and indeed their Discourses are found absurd; and the Maps by which some of them have practised to deceive the World mere Falsities, making Sea where there is known to be main Land, and Land where there is nothing but Sea."

This voyage killed Captain James's belief in the existence of a North-west Passage. Many scores of lives and thousands of pounds would have been saved if others had shared his opinion. He gives at length a plausible argument showing why there can be no passage to the South Seas by way of Hudson Strait, and why it could not be used if there had been. He shows that any passage to the east by the way that he had explored would, owing to the impassable ice and the constant bad weather, be longer, more dangerous, and more expensive than either of the known routes round the Cape of Good Hope or through the Straits of Magellan. It remained for Franklin to prove how accurate was his judgment.

Then he ends his voyage.

"The 22d of October we arrived in the Road of Bristol, having been hindered and crossed with much contrary and tempestuous Winds and Weather. The Ship being brought into Harbour, and haled on dry Ground, to look to her, it was there found, that all her cut Water were torn and beaten away, together with fourteen Feet of her Keel; much of her Sheathing cut away, her Bows broken and bruised, and much Timber cracked aboard, and under the Starboard bulged; sharp Rocks had cut through the Sheathing, the Plank, and an Inch and an Half into the Timber that it met withal. Many other Defects there were besides: so that it was miraculous how this Vessel could bring us home again."

For the past year they had known that she was in a badly battered condition, but they had not realized how little kept her from foundering. Their carpenter's opinion had been more accurate than they had believed. Only her splendid construction had saved her. She was throughout a grandly built ship; the work of the Bristol shipwrights had been perfect.

"Being all arrived we went to Church, and gave God Thanks for his Preservation of us amidst so many Dangers. I very well know that what I have here hastily written, will never discourage any noble Spirit, that is minded to bring this so long-tried Action to absolute Effect; and it is likely withal, that there be some who have a better Understanding, and a surer Way of prosecuting it than myself have, to whose Designs I wish a happy Success."

"And if they do but make a Review of what hath been done, and give more celestial Observations, hydrographical

Descriptions, or exacter Practice in Navigation, it will be a most commendable Labour; for although I have spent some Years of my ripest Age, in procuring Intelligence from foreign Nations, and have travelled with diverse honourable and learned Personages of this Kingdom, for their Instructions; have bought up whatever I could find in Print or Manuscript, and what Maps or Papers soever conducive to this Business, that possibly I could procure; and have served voluntary besides, and spent some time in rendering a Relation since my coming home, and expended withal, of my own Money, in my aforesaid Endeavours, and in furnishing extraordinary Necessaries, above £200 in ready Money; yet I repent not, but take a great deal of Comfort and Joy, that I am able to give an Account, in some reasonable Way, of those Parts of the World, which heretofore I was not so well satisfied in."

Thus modestly does Captain Thomas James end his account of a voyage that stands as an enduring monument to the giant qualities of the old seamen who, 300 years ago, searched the unknown world for its unknown treasures. Some went by old routes to seek new trade; some to fight the King's enemies; some sought new routes to the East which was the goal of every man's ambition. However they went, and for whatever reason, they acquitted themselves well, and to-day we reap the reward. The names of many great explorers are better known to-day than that of Captain James, but none has shown greater qualities than he and his little ship's company of twenty-two.

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